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AND NATURAL HABITATS

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**Follow-up of Recommendations 98 (2002) and 212
(2021) on the project to build a motorway through
the Kresna Gorge
(Bulgaria)**

**- JOINT-REPORT BY THE
GOVERNMENT AND COMPLAINANT -**

*Document prepared by
The Ministry of Environment and Water of Bulgaria and the coalition of NGOs*



REPUBLIC OF BULGARIA

MINISTRY OF ENVIRONMENT AND WATER

**Follow-up of Recommendation No. 98 (2002)
and Recommendation No. 212 (2022)
on the project to build a motorway through the Kresna Gorge
(Bulgaria)**

JOINT PROGRESS REPORT BY THE GOVERNMENT AND NGO'S

*Document prepared by
Ministry of Environment and Water (MoEW)
and*

*BALKANI Wildlife Society, Environmental Association "Za Zemiata" (For the Earth)/Friends
of the Earth Bulgaria, Bulgarian Society for the Protection of Birds, Green Policy Institute,
Vlahi Nature School, CEE Bankwatch Network.*

-July 2022-

**Complaint No. 2001/4 and Recommendations No. 98 (2002) and 212 (2022) on the
project to build a motorway through the Kresna Gorge (Bulgaria) (Struma Motorway
Lot 3.2)**

Progress since April 2022

Progress towards the implementation of Recommendation 212 (2021): establishing a new cooperative relationship between the Government and the complainants to implement point 1 of the Recommendation and establishing three consensus-based advisory working groups under point 2 of the Recommendation.

1. The first working group under point 3 of the Recommendation for the adoption of conservation objectives and priorities of NATURA 2000 sites in the region of the Kresna Gorge has successfully completed its work. The group started work on February 22, 2022, held 5 meetings and intensive expert work between meetings. All results were discussed both during the meetings and via e-mail. Observers of the process were representatives of the European Commission and the Road Infrastructure Agency. All meetings held have a full video record which is available for public access on the website of the

Ministry of Environment and Water. As a result, the following conservation priorities and objectives were approved by consensus:

- General conservation objectives in designation orders
- Conservation priorities/prioritized objectives of the NATURA 2000 sites (given in Appendix 1 to this report)
- Site Specific Conservation Objectives (SSCOs) - as they were proposed by a project led by the Ministry of Environment and Water and with the help of 2 independent experts provided by the European Commission. The working group approved changes to the SSCOs for 7 species - 4 reptiles and 2 large mammal species - which are of great importance in view of the Struma Motorway case (given in Annex 2 to this report).

At its last meeting on June 20, 2022 the working group discussed the fact that the SSCOs need future improvement and some of these comments are reflected in the final protocol of the work of the working group.

2. The second (EIA/AA revision) and the third working groups (road safety and needs of local communities according to item 9 of the Recommendation), hosted by the Ministry of Regional Development and Public Works, have not held meetings until now.

In conclusion, the Ministry of Environment and Water and NGOs welcome the progress made in the implementation of Recommendation 212 (2021) and hope that this will accelerate the implementation of the recommendation in its entirety, including the work of the second and third working groups.

Both sides unanimously welcome the democratic approach to decision-making enshrined in Recommendation 212 (2021) and consider it necessary to continue the constant monitoring of the case by the committee and the secretariat until a satisfactory level of implementation of recommendations 98/2002 and 212/2021 of the Standing Committee and as a tool to achieve better cooperation between the parties concerned in the case.

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Appendix 2 Comments received by Road Infrastructure Agency (RIA) regarding the progress report to the Berne Convention. The information was not sent to the NGO, and was not discussed between the parties.

APPENDIX 1

Extract of adopted conservation objectives Conservation priorities of NATURA 2000 sites in the region of the Kresna Gorge and SSCOs for 6 species – adopted by working group 1 at the Ministry of Environment and Waters

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I. The conservation priorities (prioritised objectives) of the SCI/SAC “Kresna-Ilindentzi” BG0000366

1. Objectives of the highest priority related to the specific role of the site for protection of the integrity, sufficiency and connectivity of the NATURA 2000 network (briefly "network coherence"), which in case of damage cannot be compensated by protection elsewhere

1.1. Preservation and restoration of the biological corridor along the Struma River in the Kresna Gorge, which has a role of connectivity habitat for long-term migrations and / or as a biogeographical range border with narrow corridor/front:

- long-term distribution and natural range border for habitats 9560* and 92C0
- long-term distribution and natural range border for species *Zamenis situla* and *Elaphe quatuorlineata*;
- long-term distribution and ensuring the connectivity of the natural range for habitats 92D0 and 92A0
- long-term distribution and ensuring the connectivity of the natural range for species *Lycaena dispar*, *Emys orbicularis*, *Testudo hermanni boettgeri*, *Testudo graeca*, *Lutra lutra*.
- a place with a narrow front for seasonal migrations (*Barbastella barbastellus*, *Myotis bechsteini*, *Myotis emarginatus*, *Rhinolophus euryale*, *Rhinolophus hipposideros*);

The following specific sub-objectives related to biotic and abiotic characteristics of the site, natural processes within the area, threats and impacts are recognised:

- Protection and restoration of the viability, connectivity and functionality of the riparian and slope habitats (slopes to 600 meters above sea level facing Struma river valley and the side tributaries), not allowing further alteration of their natural characteristics and protection of their natural processes, including those of semi-natural type. This habitats should be protected against: further damage, decrease of their area in relevance to the area at the moment of the site designation, and further deterioration of the connectivity between the riparian and slope habitats;
- Restoration the connectivity of these habitats along the Struma River in the Kresna Gorge, damaged by the linear transport infrastructure already built in the gorge;
- Reduction of mortality and/or of displacing of individuals in riparian and adjacent slope habitats caused by the operation of linear transport infrastructure – with regard to the restoration of the population vitality of the key species and of their number close to the natural;

- Protection, restoration and enlargement of the areas covered by habitats 9560*, 92C0, 92A0, 92DO;
- Reduction of the negative impact of the climate changes on the key species and habitats in the bio-corridor.

1.2. Preservation and restoration of the biological corridor through the valley of the river Struma in Kresna gorge, connecting the mountain massifs to the west and east of the gorge and playing the role of:

- Site of long-term migration and distribution of the species *Ursus arctos* * between areas of the current distribution of the species in the mountains east of the gorge, with areas of historical distribution in the recent past in the mountains to the west. This includes: permanently inhabited (to the East of the gorge) and not inhabited suitable (west of the gorge) habitats for reproduction, wintering and feeding of the species and of connectivity habitats in the gorge;
- Site of long-term migration and distribution of the species *Canis lupus* * between breeding areas with constant presence of the species east and west of the gorge;

The following specific sub-objectives related to biotic and abiotic characteristics of the site, natural processes within the area, threats and impacts are recognised:

- Restoration of the vitality of the population of species **Ursus arctos* in all suitable habitats in the zone.
- Preservation of the area of afforested or overgrown areas suitable for dens (for both species for breeding, in case of *Ursus arctos** also for hibernation) from any long-term negative impacts and alterations. This includes low levels of human presence and impact so that they do not lead to avoidance of these areas by individuals of the species in all their phases of development as well as reduction of functionality of these habitats as places suitable for dens;
- Maintenance of the area of natural habitats used for feeding and/or distribution. Maintenance and restoration of the habitats' functionality and their characteristics essential for the population vitality of both species, including their natural food basis (restoration of food plants for the bear as well as animal species - natural food sources for the wolf);
- Elimination of intentional poaching for both species as well as for the species serving as food source – which harms the populations' vitality;
- Avoiding disturbance in breeding and wintering habitats (the last for *Ursus arctos* *). This may include – as the list is not exhaustive: new forest roads or paths, cuttings, hunt, gathering of mushrooms, fruits, herbs, etc.
- Taking measures to reduce the predator-human conflict with nature-friendly, non-lethal for large carnivores and close to traditional methods;
- Avoiding of and revention from activities leading to habits for both species to get used to antropogenic food sources as illegal and/or incured landfills, bait sites for hunting predators and etc.

- Maintaining the connectivity of the habitats in Kresna Gorge all along its longitude and on its slopes, considering the behavioural ecology of the 2 species (**Ursus arctos* and **Canis lupus*) and the necessary characteristics of their habitats to ensure migration.

1.3. Objectives related to conservation and restoration of particular priority and/or representative in the zone habitats from Annex 1 of the Biodiversity Act and species from Annex 2 of the Biodiversity Act which conservation is of highest priority in the site:

- Habitat 9560 *, for which the area is the most important site in the whole country and the continental biogeographical region, protects areas part of national coverage rated as A, according to the standard data form, and at the same time is the northern border of its distribution along the Struma River valley. The habitat is critically endangered according to the Red Data Book. The habitat is inhabited permanently or periodically by a number of animal species typical for it and some of that species are simultaneously in Annex 2 of the Biodiversity Act: *Eriogaster catax*, *Erannis ankeraria*, *Euplagia quadripunctaria*, *Zamenis situla*, *Elaphe quatuorlineata*, *Testudo hermanni boettgeri*, *Testudo graeca*, *Alectoris graeca graeca*, *Sylvia nisoria*, *Hippolais olivetorum*, *Lanius collurio*, *Lanius minor*, *Lanius nubicus*, *Ficedula semitorquata*, *Emberiza hortulana*, *Coracias garrulus*, *Picoides medius*, *Picoides syriacus*, *Caprimulgus europaeus*, or other species: *Rana graeca*, *Dolichophis caspius*, *Vipera ammodytes*, *Podarcis erhardii*, *Podarcis tauricus*, *Lacerta trilineata*, *Lacerta viridis*, *Anguis fragilis*, *Xerotyphlops vermicularis*, *Eryx jaculus*, *Platyceps najadum*, *Zamenis longissimus*, *Malpolon insignitus*, *Telescopus fallax*;

- Habitat 92C0, for which the area is one of the most important in the whole country and within the continental biogeographical region, protects areas part of national coverage rated as A, according to the standard data form, and at the same time is the northern border of its distribution along the Struma River valley. The habitat is in category Endangered according the Red Data Book. The habitat is inhabited permanently or periodically by a number of characteristic animal species: *Testudo hermanni*, *Testudo graeca*, *Elaphe quatuorlineata*, *Zamenis situla*, *Podarcis erhardii*, *Podarcis tauricus*, *Lacerta trilineata*, *Lacerta viridis*, *Anguis fragilis*, *Xerotyphlops vermicularis*, *Eryx jaculus*, *Platyceps najadum*, *Dolichophis caspius*, *Zamenis longissimus*, *Malpolon insignitus*, *Telescopus fallax*, *Vipera ammodytes*, *Ficedula semitorquata*, *Dendrocopos syriacus*, *Dendrocopos medius*, *Accipiter brevipes*, *Dryocopus martius*, *Picus canus*, *Coracias garrulus*, *Lanius minor*, *Otus scops*, *Jynx torquilla*, *Parus lugubris*, *Turdus philomelos*, *Sitta neumayer*, *Lanius nubicus*;

- The plant species *Centaurea immanuelis-loewii*, for which the site is one of the five localities in the whole country and the continental biogeographical region, preserves a population rated with assessment B of the national coverage, according to the standard form, occurs in small area and small populations. The species is endangered according the Red Data Book;

- The invertebrate species *Erannis ankeraria*, for which the site is one of the two localities in the whole country and the continental biogeographical region, preserves a population rated with assessment A of the national coverage, according to the standard form, occurs in single known localities;

- The bat species *Myotis emarginatus* for which the site preserves a representative breeding colony, protects a population rated with assessment B of the national coverage, according to

the standard data form, the main breeding colony is presented in one limited locality. The species is vulnerable according the Red Data Book.

The following specific sub-objectives related to biotic and abiotic characteristics of the site, natural processes within the area, threats and impacts are recognised:

- Preservation of all particular populations of the above-mentioned species and habitats in these localities from damage and change of their natural character and processes taking place in them. Restoration and increasing the area of inhabited habitats and of the localities number;
- Preservation of all suitable habitats of the above mentioned species from reduction of space covered and deterioration of their quality (change of their natural character and processes taking place in them)
- Preservation of the above mentioned natural habitats in all their localities from damage and alteration of their natural character and processes taking place in them. Increasing the area covered by these habitats.
- Restoration of the areas of habitat 9560 * on territories in the site with degraded bush vegetation (incl. with secondary habitats of type 5210) or in forest cultures/plantations of black pine, etc. Inclusion of the restored areas in the reference area for the site;
- Restoration of the areas of habitat 92CO on territories in the site with forest cultures. Inclusion of the restored areas in the reference area for the site;
- Preservation and restoration of the artificial shelters of *Myotis emarginatus* in Kresna Gorge - the building of the railway canton hosting a breeding colony, artificial bunkers and underground galleries, other buildings/shelters.

1.4. Objectives related to protection and restoration of forests in old-growth phase – for all types of forest habitats from Annex 1 of Biodiversity Act, subject to protection in the area.

The following specific sub-objectives related to biotic and abiotic characteristics of the site, natural processes within the area, threats and impacts are recognised:

- Ensuring strict protection of all existing forest habitats meeting the old-growth criteria at the time of site designation as SAC.
- Restoration of suitable territories with forest habitats, subject to protection within the site until their transformation into old-growth forests or maximum close to this characteristic and protecting the natural processes in them. Reaching the minimum required covered with such forests for each forest habitat - subject to protection. The size of area covered and their spatial pattern should reflect biological requirements and characteristics necessary to carry vital populations of the following species typical for them: **Ursus arctos*, **Canis lupus*, *Barbastella barbastellus*, *Myotis bechsteinii*, *Dryocopus martius*, *Dendrocopos medius*, *Dendrocopos syriacus*, *Picus canus*, *Jynx torquilla*, *Circaetus gallicus*, *Hieraaetus pennatus*, *Accipiter brevipes*, *Accipiter nisus*, *Ficedula semitorquata*, *Cerambyx cerdo*, *Lucanus cervus*, *Morimus*

funereus, *Cucujus cinnaberinus*, **Rosalia alpina*. This territory must be minimum 10% of the area covered in the site of each forest habitat.

2. Other high priority objectives – for protection of habitats or species falling into some of the following categories: priority; representative; presented with significant territories and/or populations; other significant role. Within the area such are:

- Natural habitat types from Annex 1 of Biodiversity Act (priority and/or the site is with high representativity for them according to the standart form): 6210*, 6220*, 6520, 8220, 8230, 9110, 9130, 9260, 91AA*, 91E0*, 91M0, 92A0, 9530*, 95A0.
- The reptile *Zamenis situla* for which the area is the most representative in the country and in the continental biogeographical region protects population with rate B from the national coverage regarding the standard form and together with this is the northern border of its distribution along the Struma river. The species is of Red Book category – endangered.
- The reptile *Elaphe quatuorlineata* for which the area is the most representative in the country and in the continental biogeographical region protects population with rate B from the national coverage regarding the standard form and together with this is the northern border of its distribution along the Struma river. The species is of Red Book category – endangered. Considering its small area limited only to the South part of the Struma valley, this area comes of significant importance for the species and together with this is a Northern border of distribution – both along the Struma valley and for the species area itself as a whole.
- The species from Annex 2 of Biodiversity Act (priority and/or the area with high representativity for them according to the standart form): *Austropotamobius torrentium**, *Eriogaster catax*, *Triturus ivanbureschi*, *Testudo graeca*, *Testudo hermanni*, *Emys orbicularis*, *Rhinolophus ferrumequinum*.

The following specific sub-objectives related to biotic and abiotic characteristics of the site, natural processes within the area, threats and impacts are recognised:

- Protection and/or support of the natural processes of succession in forests leading to the forest habitats 9110, 9130, 9260, 91AA*, 91E0*, 91M0, 92A0, 9530*, 95A0, incl. with transformation of forest cultures. They have advantage before the protection of other forest habitats subject to protection. The changes in the area covered by these natural habitats due to such successions should be reflected into the reference areas of those habitats;
- At poor, eroded or shallow soils where habitat 9530* is naturally presented, in case of natural successions, the habitat is maintained in order to prevent succession to another type of forest habitat. At regenerative cuttings on these territories it is recommended to tolerate the black pine;
- Support of natural successions from habitat 91CA to habitats 9110, 9130, 91BA. The changes in the area covered by these natural habitats due to such successions should be reflected into the reference areas of those habitats;
- Protection of all habitats in the *Eriogaster catax* localities from reduction in their area and from the use of pesticides and biocides of professional category in these habitats. Encouragement of their protection via maintaining their semi-natural condition. This includes protection of shrub and tree vegetation and presentation within it of the species of wild pear

(*Pyrus*), thistle (*Prunus spinosa*), hawthorn (*Crataegus*), oak (*Quercus*), poplar (*Populus*) – which are feeding species for *Eriogaster catax*.

- Restoration of *Austropotamobius torrentium* populations in river currents that are potential habitats. Removal or maximal mitigation of existing impacts, which are reason for extinction, deterioration the vitality of the populations or for deterioration of the habitats quality, which may include: removing of physical barriers in the rivers which lost their primary function, construction or reconstruction of fish passages in order to improve the biological connectivity of the water currents and ensuring the migration of the species and all other water animals.
- Protection of water bodies with localities of *Triturus ivanbureschi* and/or *Emys orbicularis* and their coastal zones from changes in the natural state and hydrological regime, including from construction, change in land use leading to change in the habitat characteristics, except those restoring their natural character. Maintenance of artificial water bodies with such populations. Restoration of populations of both species in suitable habitats in the area;
- Protection of all suitable habitats of *Zamenis situla*, *Elaphe quatuorlineata*, *Testudo graeca* and *Testudo hermanni* from decrease of the area covered or deterioration of habitat quality (alteration of their natural character and and natural processes taking place in them).
- Restoration of the habitats of *Zamenis situla*, *Elaphe quatuorlineata*, *Testudo graeca* and *Testudo hermanni* via restoration natural scrub-woodland or forest vegetation on the site of artificial cultures of pine sorts and/or black locust.
- Protection of populations of *Testudo graeca* and *Testudo hermanni* from poaching leading to populations vitality harms.
- Protection from fire of grasslands and overgrown areas, extensive agricultural lands and light or sparse forests representing habitats of *Testudo graeca* and *Testudo hermanni*;
- Preservation and maintenance of the bunkers and artificial galleries in the area of Kresna Gorge, suitable for maintaining bat colonies. Creation of new artificial shelters in suitable places;
- Protection of riparian areas and adjacent slopes, which are the main food habitat of bats, from direct damage, use of pest control chemicals, other pollution, including noise pollution.

3. Objectives related to the protection of landscape elements specific for the site and their abiotic and biotic characteristics, essential for the conservation of natural habitats of Annex 1 of the Biodiversity Act and species and their habitats of Annex 2 of the Biodiversity Act or complexes thereof.

3.1. Conservation of grassland habitats (pastures, meadows, permanently abandoned agricultural lands, forest openings), woodlands with sparse tree vegetation, scrub habitats (occupied with shrub vegetation), orchards and vineyards and their complexes. This includes the following habitats and species territories from Annex 1 and 2 of Biodiversity Act:

- Complexes of dry grass habitats, shrubs and stoney terrains, agricultural lands in the low-mountain and/or middle-mountain area: 5210, 6210*, 6220*, 62A0

- Complexes of grass habitats, low shrubs, bushes, agricultural lands and stoney terrains in the high-mountain, sub-alpine and/or alpine zone: 4060, 6230*, 62D0
- Humid, mezophilic and/or alluvial grass habitats: codes from Annex 1 of Biodiversity Act: 6510, 6520, 6430
- **Canis lupus* – hunting areas in the grass habitats, sparse woodlands, shrub habitats
- **Ursus arctos* – food and hunt habitats, shrub and grass habitats
- *Vormela peregusna*, *Testudo graeca*, *Testudo hermanni*, *Elaphe quatorlineata*, *Elaphe situla* – the dry grasslands with shrubs and extensive agricultural lands in the low-mountain zone, and for the 2 species of tortoises – the low parts of the middle-mountain zone as well
- *Rhinolophus euryale*, *Rhinolophus ferrumequinum*, *Rhinolophus hipposideros*, *Rhinolophus mehelyi*, *Myotis blythii*, *Myotis myotis* (hunting habitats of these species in the open spaces)
- Invertebrates on dry, slopy, grassy habitats in the low- and middle-mountain zone - *Probaticus subrugosus*, *Eriogaster catax*, **Euplagia quadripunctaria* (forest meadows, in the forest outskirts)
- *Polyommatus eroides* – middle- and high-mountain pastures and meadows
- *Lycaena dispar* – riparian meadows and grassland

The following specific sub-objectives related to biotic and abiotic characteristics of the site, natural processes within the area, threats and impacts are recognised:

- Preservation of the area in the site of natural habitats from Annex 1 with grassland or shrub character and their natural characteristics;
- Preservation and restoration of the structure and functions of the grassland habitats types subject to protection in order to achieve vital populations of the characteristic species in accordance with the best available scientific information. This includes:
 - taking into account at least the following indicators for the structure of the plant communities: general projective coverage of the grassland; presence of typical plant types; presence of moss and lichen mosaics; invasive alien species; overgrowing with shrub and woodland;
 - when complexes or grass- and shrub-woodland vegetation are formed, natural and/or semi-natural processes and structures of such habitats are protected;
 - maintenance of the type and intensity of grazing which does not harm the structure and functions of the grassland and simultaneously allows avoiding succession to entirely shrubby or woodland ecosystems;
 - maintenance of habitats 6510 and 6520 with annual mowing and first mowing after the seeds of the dominating species have ripened;
 - protection in these habitats the natural soil and hydrological conditions and characteristics;
 - protection from meliorations and alterations in the hydrological regime which may lead to changes in these characteristics including from artificial introduction of biogenic or other pollutions; protection of the grassland and their natural borders from other nature ecosystems from fragmentation.

- protection from fragmentation also regarding the habitats and populations of the characteristic for them species including as a result of fencing, building in the neighbouring territories, etc.
 - Protection of species habitats and grassland types from Annex 1 in agricultural lands – fields, gardens, orchards and vineyards via:
 - avoidance of intensifying of their usage according to their condition at the time of site designation order.
 - encouraging nature-friendly usage of these lands as this may include:
 - Restoration of grasslands from Annex 1 on abandoned and wildened agricultural lands with supporting the development of the dominating and typical plant species and adequate to this objective governance and creation of favourable conditions for the typical, for these grasslands, animal species (this must include the necessary for these species landscape characteristics as singles and groups of trees and bushes, stone piles, etc.);
- OR
- Stewardship of agricultural lands according to their purpose via nature-friendly methods preserving species habitats, subject to protection in the area, as this may include hedges, elimination of the constant soil ploughing, making of shelters and reproduction territories, protection of a minimum percentage of area as natural grasslands from Annex 1 and other measures according the biology of the species protected there;
- Protection of pasture ecosystems with characteristic for them bushes and trees and of the typical for them natural habitats and species subject of protection via:
 - avoidance of intensification of their usage according their condition at time of adoption of site designation order including of practices deteriorating the habitats itself and their characteristic species.
 - encouragement of practices for maintaining pastures with bushes and trees, maximally close to traditional ones and having led to the creation and maintenance of these ecosystems. This includes the achieving of:
 - maintenance of the natural balance between grassy and bushy areas and of the natural complexes of single or group bushes and trees. For the pastures and the dry grasslands without shrubs where bird species are being protected subject to protection in site BG0002003 – compliance with the environmental priorities of this site;
 - maintenance of the species structure of the plant communities;
 - vitality of the animal species populations subject of protection in the area, inhabiting these territories and characteristic for them;
 - performing measures for restoration of overgrown pastures only as an exclusion and with non-invasive means regarding their characteristic species.
- Maintaining grassland management practices that preserve the characteristic animal species in these ecosystems and the quality of their habitats
- Preservation or restoration of the of the viability of populations of the animal species characteristic for these habitats of Annex 1 within the entire area and especially of the following characteristic species with nature conservation significance:

- for pastures without shrubs 6210*, 6220*, 62A0 - *Burhinus oedicephalus*, *Calandrella brachydactyla*, *Melanocorypha calandra*, *Anthus campestris*;
- for grasslands with shrubs from the low mountain zone and habitats 5210, 6210*, 6220*, 62A0- *Lanius collurio*, *Lanius nubicus*, *Hippolais olivetorum*, *Sylvia nisoria*, *Lullula arborea*, *Caprimulgus europaeus*, *Emberiza hortulana*, *Alectoris graeca*, *Testudo hermanni*, *Testudo graeca*, *Elaphe quatuorlineata*, *Zamenis situla*;
- for pastures and pasture meadows in the medium and high mountain zone and habitats 4060, 6230*, 62D0- *Crex crex*;
- for hay meadows and habitats 6510, 6520 - *Crex crex*, *Testudo hermanni*, *Testudo graeca*, *Elaphe quatuorlineata*, *Zamenis situla*;
- for riverside grasslands and habitats 6420, 6430 - *Crex crex*, *Ciconia ciconia*, *Ciconia nigra*, *Triturus ivanbureschi*, *Bombina variegata*, *Emys orbicularis*, *Testudo hermanni*, *Testudo graeca*, *Elaphe quatuorlineata*, *Zamenis situla*.

3.2. Conservation in the protected site of forest habitats. This includes the following habitats and habitats of species from Annexes 1 and 2 of the Biodiversity Act:

- Xerothermic forests: *91AA, 91M0, 9560*
- Mid-mountain: 9130, 9150, 9170, 91Z0, 9260, 9530*
- High mountain forests: 4070*, 9110, 91BA, 91CA, 9410, 95A0
- Woodlands on steep slopes and screes: 9180*
- Riparian forests and scrub: 91E0*, 92C0, 92A0, 92D0
- Breeding and hunting habitats of bat species *Barbastella barbastellus* and *Myotis bechsteinii*
- Hunting habitats of bat species *Rhinolophus euryale*, *Rhinolophus ferrumequinum*, *Rhinolophus hipposideros*, *Rhinolophus blasii*, *Miniopterus schreibersii*, *Myotis emarginatus*, *Myotis myotis*
- Winter dens (**Ursus arctos*), breeding and feeding habitats of **Canis lupus* and **Ursus arctos*
- In the low mountain zone, and for tortoises and the low parts of the mid-mountain zone - light dry forests, forest edges, forest openings, pastures and clearings - the species *Testudo graeca*, *Testudo hermanni*, *Elaphe quatorlineata*, *Elaphe situla*
- Invertebrate species (beetles) of old broad-leaved forests or forests with old trees *Cerambyx cerdo*, *Lucanus cervus*, *Morimus funereus*, *Cucujus cinnaberinus*, **Rosalia alpina*
- *Erannis ankeraria* - warm sparse oak forests and their outskirts
- *Eriogaster catax*, **Euplagia quadripunctaria* (forest openings, on the outskirts of forests)

The following specific sub-objectives related to biotic and abiotic characteristics of the site, natural processes within the area, threats and impacts are recognised:

- Maintaining a canopy characteristic for each particular forest habitat;

- Species composition and dominant tree species characteristic of the respective habitat;
- Preservation and restoration of the structure and functions of the forest habitats subject to conservation in order to achieve and preserve viable populations of the characteristic species and according to the best available scientific information. This includes at least the following indicators:
 - weighted average age for the whole site of the first tree floor;
 - for the specific territories occupied by forest habitats, the indicators of dead wood, such as stock (volume), number of standing dead trees, number of old trees with at least one age class above the average of the forest.
- Preservation or restoration of the of the viability of populations of the animal species characteristic for these habitats within the entire site and especially of the following species from Annex 2 of the Biodiversity Act:
 - for the forests of the low-mountain oak belt and habitats 91AA*, 91M0, 91Z0 - *Barbastella barbastellus*, *Myotis bechsteinii*, *Caprimulgus europaeus*, *Dendrocopos medius*, *Hieraetus pennatus*, *Circaetus gallicus*, *Testudo hermanni*, *Testudo graeca*, *Elaphe quatuorlineata*, *Zamenis situla*, *Lucanus cervus* , *Morimus asper funereus*, *Cerambyx cerdo*;
 - for the forests of the low part of the mid-mountain hornbeam-sessile oak belt and habitats 9150, 9170, 9180*, 9260 - *Barbastella barbastellus*, *Myotis bechsteinii*, *Caprimulgus europaeus*, *Dendrocopos medius*, *Ficedula semitorquata*, *Lucanus cervus*, *Morimus asper funereus*, *Cerambyx cerdo*;
 - for the forests of the high part of the mid-mountain beech and beech-fir belt and habitats 9110, 9130, 91BA, 9180* - *Barbastella barbastellus*, *Myotis bechsteinii*, *Ficedula semitorquata*, *Dryocopus martius*, *Picus canus*, *Dendrocopos leucotos*, *Bonasa bonasia*, *Bombina variegata* , *Morimus asper funereus*, *Rosalia alpina*;
 - for black and white pine forests in the mid-mountain belt and habitats 91CA, 9530* - *Dryocopus martius*, *Picus canus*, *Dendrocopos leucotos*, *Pernis apivorus* / *Muscicapa striata*, *Accipiter nisus*, *Accipiter gentilis*;
 - for the forests of the high mountain coniferous and sub-alpine belt and habitats 4070*, 91CA, 9410, 95A0 - *Aegolius funereus*, *Dryocopus martius*, *Glaucidium passerinum*, *Tetrao urogallus*, *Bonasa bonasia*;
 - for the riparian forests of the low and medium mountain belt and habitats 91E0*, 92A0, 92C0, 92D0 - *Barbastella barbastellus*, *Myotis bechsteinii*, *Ficedula semitorquata*, *Accipiter brevipes*, *Dendrocopos syriacus*, *Picus canus*, *Dendrocopos medius*, *Triturus ivanbureschi*, *Bombina variegata*, *Emys orbicularis*, *Testudo hermanni*, *Testudo graeca*, *Elaphe quatuorlineata*, *Zamenis situla*, *Lanius nubucus*;
- Where and when it is appropriate, feasible and necessary - restoration of forest habitats 9110, 9130, 9260, 91AA*, 91E0*, 91M0, 92A0, 9530*, 95A0 on territories now occupied by artificial forest plantations of *Pinus sylvestris*, *Pinus nigra*, *Robinia pseudoacacia*, hybrid poplars, etc. according to the type of habitat and the vegetation zone in which the respective forest habitats naturally occur;
- Protection from afforestation or other changes in their character of forest meadows, pastures and clearings, in the forest areas, which are the habitats of the species *Testudo graeca*, *Testudo hermanni*, *Elaphe quatorlineata*, *Elaphe situla*.

3.3. Conservation in the protected site of rivers, lakes and their riparian habitats and habitats along the shores of reservoir. This includes the following habitats and habitats of species from Annexes 1 and 2 of the Biodiversity Act:

- Grasslands and forests along the shores of reservoirs, riparian and flooded habitats 6430, 91E0*, 92C0, 92A0, 92D0
- Hunting habitats of bat species *Rhinolophus euryale*, *Rhinolophus ferrumequinum*, *Rhinolophus hipposideros*, *Myotis blythii*, *Myotis emarginatus*
- Aquatic and terrestrial habitats of the species *Lutra lutra*, *Emys orbicularis*, *Triturus karelinii*, *Bombina variegata*
- River and lake habitats of the species **Austropotamobius torrentium*, *Ophiogomphus cecilia*, *Cordulegaster heros*, *Unio crassus*, *Aspius aspius*, *Barbus cyclolepis*, *Rhodeus amarus*, *Cobitis taenia*
- Riparian habitats of *Lycaena dispar*

The following specific sub-objectives related to biotic and abiotic characteristics of the site, natural processes within the area, threats and impacts are recognised:

- Preservation and/or restoration of the natural hydromorphological conditions of river courses and water bodies: for unaffected sections as of January 1, 2007 preservation of the natural hydromorphological condition and water quantities, and for those with altered - restoration of as close to natural conditions as possible. For river courses with changed water quantity as of January 1, 2007. ensuring a minimum allowable outflow, not less than 30% of the average multi-year water quantity, calculated as of January 1, 2007, to the point of water intake or outflow regulation;
- Protection and restoration of the good condition of surface waters, including their good ecological and chemical condition and prevention of new pollution, including coming from outside the boundaries of the water body or the protected site;
- Protection of:
 - the natural character of the river bottom and shore, including reproductive (for species) and other habitats around the shore of water bodies;
 - river sections with fast currents suitable for rheophilic species and especially against eddies;
 - rivers from barriers of anthropogenic nature and restoration of their connectivity, including where such barriers were created before January 1, 2007;
 - protection from damage due to permanent direct destruction or felling of natural riparian forests and especially those including Oriental Plane, Black Alder, White Poplar, Black Poplar, willow species;

3.4. Conservation in the protected site of rock habitats, screes, caves, etc. This includes the following habitats and habitats of species from Annexes 1 and 2 of the Biodiversity Act:

- Silicate rocks and screes 8110, 8220 and 8230
- Limestone rocks 8210
- Caves 8310
- All types of bats (summer and winter shelters in rock crevices, niches or caves and other shelters)

The following specific sub-objectives related to biotic and abiotic characteristics of the site, natural processes within the area, threats and impacts are recognised:

- Protecting these habitats from direct destruction;
- Protecting nesting bird species and bats using rock crevices as shelters from disturbance;
- Protecting bat colonies in caves, underground galleries and bunkers from disturbance and direct damage of the natural conditions in these caves;
- Preservation or restoration of the of the viability of populations of the animal species characteristic for these habitats within the entire site and especially of the following species from Annex 2 of the Biodiversity Act:
 - for silicate screes 8110 - *Alectoris graeca*;
 - for limestone rocks 8210 - *Falco peregrinus*, *Falco biarmicus*, *Alectoris graeca*, *Aquila chrysaetos*, *Gyps fulvus*, *Bubo bubo*, *Buteo rufinus*, *Ciconia nigra*, *Falco cherrug*, *Sitta neumayer*;
 - for silicate rocks 8230 - *Falco peregrinus*, *Falco biarmicus*, *Aquila chrysaetos*, *Alectoris graeca*, *Bubo bubo*, *Buteo rufinus*, *Ciconia nigra*, *Falco cherrug*;
 - for cave habitats 8310 - *Miniopterus schreibersi*, *Myotis blythii*, *Myotis capaccinii*, *Myotis emarginatus*, *Myotis myotis*, *Rhinolophus blasii*, *Rhinolophus euryale*, *Rhinolophus ferrumequinum*, *Rhinolophus hipposideros*, *Rhinolophus mehelyi*;
 - for the winter dens of **Ursus arctos*

4. General objectives for all habitat types from Annex 1 of the Biodiversity Act and species from Annex 2 of the Biodiversity Act

4.1. Maintain the area of all habitat types from Annex 1 of the Biodiversity Act and the habitats of species from Annex 2 protected in the site, and restoring the area where needed

4.2. The reference areas for achieving the objective should be defined according to their area at the date of submission of the scientific proposal for the designation of the site, but no later than January 1, 2007 and including the areas with subsequently restored habitats. Natural

succession/development to other natural habitats subject to conservation, which have a higher priority, should also be reflected in the reference area.

4.3. Conservation and restoration of the characteristic structure and functions of natural habitats from Annex 1, as well as the viability of the populations of their characteristic species.

4.4. Conservation and restoration of the quality of the habitats of species from Annex 2 of the Biodiversity Act, as well as the viability of their populations within these habitats.

4.5. Protection from damaging the characteristic and typical species in areas with habitats from Annex 1 and habitats of species from Annex 2 of the Biodiversity Act due to contamination or the use of plant protection pesticides and biocides of a professional category of use.

4.6 Protection of populations of protected species from poaching. Particularly vulnerable species are: **Canis lupus*, **Ursus arctos*, *Testudo hermanni*, *Testudo graeca*, *Elaphe quatuorlineata*, *Zamenis situla*

4.7 Fire protection all types of habitats. Particularly vulnerable are the forest habitats and the viability in the habitats of the populations of *Testudo hermanni*, *Testudo graeca*, *Elaphe quatuorlineata*, *Zamenis situla*;

4.8 Protection of all natural habitats from the use of mineral fertilizers and plant protection products and biocides of a professional category of use, which may create a risk for the species subject to protection and for the typical and characteristic species of the natural habitats subject to protection;

4.9 Protection against the invasion and establishment of foreign and invasive introduced species;

4.10. Addressing climate change through measures, aiming at reducing its impact or at assisted natural migration and translocation of habitats and species. In case of inevitable natural changes in the territories and areas of the habitats from Annex 1 and of species from Annex 2 of the BIODIVERSITY ACT, due to climate change, restoration should be sought on damaged areas of other habitats and species from the Annexes of the BIODIVERSITY ACT.

II. The conservation priorities (prioritised objectives) of the SPA “Kresna” BG0002003

1. Objectives of the highest priority related to a specific role of the site in protecting the integrity, completeness, and connectivity of the NATURA 2000 network (in short, 'network coherence'), which, if adversely affected, cannot be compensated for by conservation elsewhere

1.1. Protection of rocky habitats and the populations of related to them species by:

- Conservation of nesting rocky habitats of the *Gyps fulvus*, *Neophron percnopterus*, *Aquila chrysaetos*, *Falco peregrinus*, *Falco cherrug*, *Falco biarmicus*, *Buteo rufinus*, *Ciconia nigra*,

Bubo bubo. All of which have small populations in the country, listed in the Red Data Book and Annex 2 and 3 of the Biodiversity Act. Conservation of the population of these species.

- Protection of nests of *Gyps fulvus*, *Neophron percnopterus*, *Aquila chrysaetos*, *Falco peregrinus*, *Falco cherrug*, *Falco biarmicus*, *Buteo rufinus*, *Ciconia nigra*, *Bubo bubo*;
- Protecting from damage to potential habitats for future breeding and restoring the vitality of populations of threatened species such as *Gyps fulvus*, *Aegypius monachus*, *Neophron percnopterus*, *Falco cherrug*, *Falco biarmicus*. In the past these species, were breeding or were observed during the breeding period in the current territory of the zone. Recovery of the population in the area, including by reintroduction of the species:
 - *Gyps fulvus* - the species in the Red Data Book of the Republic of Bulgaria with low abundance.
 - *Neophron percnopterus* - critically endangered in Bulgaria, listed in the Red Data Book. They are rapidly declining throughout Europe. Conservation of its breeding and feeding habitats and active conservation measures are needed. According to the Red Data Book of the Republic of Bulgaria, the species has been breeding in the area since 2003, but it is currently found only during migration and vagrancy.
- Conservation of *Falco tinnunculus* breeding habitat and population
- *Alectoris graeca* nesting habitat - nests on rocky slopes with scrub and feeds on adjacent ridge alignments
- Species listed on the standard form as “other important species”, these are the breeding habitats of the following biome-restricted Mediterranean species: *Monticola solitarius*, *Sitta neumayer*, *Oenanthe hispanica*.

This includes the following specific objectives related to the biotic, abiotic characteristics of the area, natural processes in the area, threats and impacts:

- Conservation of nests of *Gyps fulvus*, *Neophron percnopterus*, *Aquila chrysaetos*, *Falco peregrinus*, *Falco cherrug*, *Falco biarmicus*, *Falco subbuteo*, *Buteo rufinus*, *Ciconia nigra*, *Bubo bubo*.
 - from direct damage and destruction;
 - the areas around the nests from activities that may lead to disturbance and/or displacement of individuals from the nests, taking into account the behavioural biology of each species. Provide peace and minimise disturbance to birds of conservation concern during the breeding season/1.03.-31.07/;
 - from disturbance and displacement the habitats with suitable characteristics - rock niches, crevices, etc. - for potential nesting of the target species and according to the biology of the species;
 - the individual feeding nesting territories around the nests from activities that may lead to mortality of nesting individuals, including from using poison baits, construction of wind turbines, presence of unprotected power transmission lines and poles, etc.;
- Protect, restore and prevent the destruction of rocky habitats and their natural features. Protection from direct damage;

- To meet the species' feeding requirements by promoting pastoral livestock production and/or by maintaining an optimum natural number of wild cervids. For the species *Ciconia nigra*, conservation and restoration of wetlands.

1.2. Conservation and restoration of natural Mediterranean and sub-Mediterranean shrub communities and xerothermic forests in which a large number of biome-restricted Mediterranean species breed and conservation of the habitat of *Alectoris graeca graeca*. This includes:

- Nesting habitats of many biome-restricted Mediterranean species and for whose diversity in the area these habitats are of key importance. Such biome-restricted species of highest priority are *Hippolais olivetorum*, and *Lanius nubicus* - for these, the area is rated A for global importance on the standard form; it is the limit of their geographical distribution.

Several other species for which site is designated also have core breeding habitats in this vegetation type: *Emberiza hortulana*, *Lanius collurio*, *Lanius minor*, *Lullula arborea*, and *Sylvia nisoria*.

From species listed in the standard form as “other important species”, these are the breeding habitats of the following biome-restricted Mediterranean species: *Sylvia cantillans*, *Sylvia melanocephala*, *Emberiza melanocephala*, *Emberiza cirius*.

The breeding habitats of these species include evergreen or with evergreen-elements Mediterranean and sub-Mediterranean scrub and woodlands:

- native woodlands of Greek Juniper;
 - low woodland and scrub of Kermes Oak;
 - sparse woodlands of Pubescent Oak with undergrowth of evergreen species;
 - evergreen scrub of Mock Privet
 - shrublands on shallow soils and/or steep slopes with evergreen elements of Jerusalem Thorn, Red Juniper, Oriental Hornbeam, Terebinth, etc.;
 - riparian scrub for the species *Hippolais olivetorum*.
- Nesting habitats of *Alectoris graeca graeca* - a very rare and declining species in Bulgaria, listed in the Red Data Book and Appendices 2 and 3 of the Biodiversity Act. The area protects one of the country's most numerous and representative populations. The breeding habitats in the area are steep slopes with mosaics of rocks, boulders, scree, scrub, scattered trees and vegetation.

This includes the following specific objectives related to the biotic, abiotic characteristics of the area, natural processes in the area, threats and impacts:

- Protection of habitats and localities of species from direct damage and alteration of their natural character;
- Protect and restore the vitality of key species populations and protect them from disturbance, displacement and human-caused mortality in their habitats.

1.3. Conservation of migratory birds, including:

- High priority threatened species - *Aegypius monachus*, *Gyps fulvus*, *Neophron percnopterus*, *Accipiter brevipes*, *Aquila pomarina*, *Circaetus gallicus*, *Falco cherrug*, *Falco peregrinus*, *Falco biarmicus*, *Falco eleonora*, *Falco vespertinus*
- Other species migrating along the biocorridor and listed in the standard form - *Actitis hypoleucos*, *Anthus campestris*, *Aquila clanga*, *Aquila heliaca*, *Aquila pomarina*, *Ardea cinerea*, *Calandrella brachydactyla*, *Caprimulgus europaeus*, *Charadrius dubius*, *Ciconia ciconia*, *Ciconia nigra*, *Circaetus gallicus*, *Circus aeruginosus*, *Coracias garrulus*, *Emberiza hortulana*, *Hieraaetus pennatus*, *Lanius collurio*, *Lanius minor*, *Merops apiaster*, *Milvus milvus*, *Pelicanus crispus*, *Pernis apivorus*, *Sylvia nisoria*.
- The habitats of migratory birds are:
 - Riparian and woodland habitats on slopes important for the species *Circaetus gallicus*, *Pernis apivorus*, *Accipiter brevipes*, *Accipiter nisus*, *Aquila pomarina*, *Hieraaetus pennatus*, *Ficedula semitorquata*, *Coracias garrulus*, *Lanius minor*.
 - Shrub habitats on slopes are essential for the species *Lanius collurio*, *Emberiza hortulana*, *Sylvia nisoria*, and *Caprimulgus europaeus*.
 - Riverside habitats of *Alcedo atthis*, *Actitis hypoleucos*, *Ciconia nigra*, *Charadrius dubius*, *Riparia riparia*, *Anas platyrhynchos*, *Burhinus oedicephalus*.

This includes the following specific objectives related to the biotic, abiotic characteristics of the area, natural processes in the area, threats and impacts:

- Protect the functionality of these habitats and prevent impacts and threats that could adversely affect that. At least such as:
 - wind farms and generators, unprotected electric transmission lines and poles, etc., causing increased mortality in sites of aggregation and migration;
 - linear transport infrastructure in the Struma River valley causing mortality and/or displacement of individuals from bird species in riparian and adjacent slope habitats;
 - river regulations and hydropower construction along the river Struma.
- Protect the total area of these habitats from reduction, related to area at the time of site designation.

1.4. Protection and restoration of old-growth forests, biotope trees and standing deadwood - for species of conservation concern in the area that need them as nesting habitats.

- Conservation of the species *Accipiter brevipes*, *Hieraaetus pennatus*, *Circaetus gallicus* and their habitats. These species are represented in the country with small populations. SPA Kresna

is representative of *Accipiter brevipes* and *Circaetus gallicus*, one of the few localities of *Hieraaetus pennatus* in Western Bulgaria. These species nest in forests but forage in open grassland habitats, pastures, steppes, and arable areas. The species breeds in:

- *Accipiter brevipes* - in old riparian and plane forests.
- *Hieraaetus pennatus* - in woodlands on old trees.
- *Circaetus gallicus* - in forest margins on old trees.
- Conservation of species that need to nest in patches of old forests:
 - *Dryocopus martius* - shady and humid forests rich in old trees and deadwood;
 - *Dendrocopos medius* - oak and riparian forests rich in old trees and deadwood;
 - *Ciconia nigra* - old riparian and lowland forests without intensive human presence and the presence of old trees. The species feeds along the Struma river and other wetlands.
- Conservation of other species nesting in forest stands on old and/or hollow trees *Aquila pomarina*, *Pernis apivorus*, *Picus canus*, *Ficedula semitorquata*.
- Restoration of *Aegypius monachus* populations - the species is listed in the Red Data Book for the Republic of Bulgaria with low numbers. In the past, breeding or observed during the breeding season in the current territory of the area. Preservation of old trees is vital for the nesting of the species. Recovery of the population in the area, including through measures for reintroduction.

This includes the following specific objectives related to the biotic, abiotic characteristics of the area, natural processes in the area, threats and impacts:

- Ensuring strict protection of all existing at the time of site designation forest habitats in the zone, meeting the criteria for forests in the old-growth phase and protecting their natural processes.
- Restoration of woodland nesting habitats until they are established as old-growth forests or as close to this characteristic in which the natural processes are preserved. Reaching minimum required area of such forests, as total and individual area and spatial pattern, respecting conditions necessary for conservation of viable population of these species. This area should be a minimum of 10% of the area within the woodland zone, which is the breeding habitat for these species.
- Conservation and management of all Oriental Plane galleries and other natural riparian forests, as old growth forests.
- Protection of the nests of *Accipiter brevipes*, *Hieraaetus pennatus*, *Circaetus gallicus*, *Ciconia nigra*, *Aegypius monachus*, *Clanga pomarina*, *Pernis apivorus*:
 - from direct damage and destruction;
 - On the territories around nests and roosting sites from activities that may lead to disturbance in and/or displacement from nests, considering each species's behavioural biology (excluding *Ciconia ciconia*). Ensure peace and minimise disturbance of birds of conservation concern in the breeding area period/1.03.-31.07/.

- In feeding habitats around nests from activities that may lead to mortality of nesting individuals, including using poison baits, building wind turbines, the presence of unprotected electrical transmission lines, poles, etc.;
- The preservation of single (in open areas) old and hollow trees.
- Conservation of quality of non-old-growth forest habitats of those species, with characteristics allowing successful nesting, according to the biology of these species. The features to be conserved and restored include at least:
 - standing deadwood as stock (volume);
 - lying deadwood;
 - the preservation of existing old and hollow trees in forests;
 - management of forestry activities to protect old (biotope, overstorey) trees with at least one age class over the average age of the stand or trees with DBH>50 cm ;
 - in riparian forests, conservation of all trees of Oriental Plane, Common (Black) Alder, White and Black Poplar from felling except where they pose safety risks to infrastructure or where they are fallen and obstructing river beds.
- To meet feeding requirements for the species by promoting pastoral livestock farming and maintaining optimum natural numbers of wild cervids animals. For the species *Ciconia nigra*, conservation and restoration of wetlands.

2. Other high-priority objectives - for the conservation of species which fall within the following categories: priority; representative; represented with significant areas and/or populations and their habitats. Such as:

2.1. Conservation of *Burhinus oedicnemus* and other important species in steppe habitats:

- Conservation of *Burhinus oedicnemus* and its habitats – very rare and declining in the country, with a population of fewer than 200 pairs, included in the Red Data Book within the Vulnerable category. The site is one of its few localities in Western Bulgaria. It nests in riparian alluvial sandbanks and islands, and in steppe grassland habitats on dry, stony slopes.
- Conservation of *Anthus campestris* (Globally Important Assessment B in standard form), *Melanocorypha calandra* (A threatened category in Red Data Book) and *Calandrella brachydactyla* (Red Data Book Vulnerable). Breeding with significant and representative populations in the open steppe grassland habitats and pastures.
- Open and steppe grassland is a feeding habitat during nesting and migrations of *Aegypius monachus*, *Gyps fulvus*, *Neophron percnopterus*, *Aquila chrysaetos*, *Aquila pomarina*, *Hieraaetus pennatus*, *Circaetus gallicus*, *Falco peregrinus*, *Falco cherrug*, *Falco biarmicus*, *Falco tinnunculus*, *Pernis apivorus*, *Buteo rufinus*, *Buteo buteo*, *Bubo bubo*, *Merops apiaster*.
- For species listed in the standard form as “other important species”, grassland steppe habitats on dry stony slopes are the breeding habitat of the biome-restricted Mediterranean species *Oenanthe hispanica*.

This includes the following specific objectives related to the biotic, abiotic characteristics of the area, natural processes in the area, threats and impacts:

- Conservation of steppe grassland habitats on dry, rocky slopes and steppe grasslands, and all localities of *Burhinus oedicephalus*, *Anthus campestris*, *Melanocorypha calandra* and *Calandrella brachydactyla* from direct damage and changes in their natural character;
- Management of steppe grassland habitats on dry stony slopes and steppe grasslands to prevent overgrowth of shrubs and tree vegetation and promote and protect natural and semi-natural processes leading to this vegetation type;
- Encourage the restoration of grassland habitats on other abandoned agricultural lands;
- Conserve natural hydro morphological conditions along the Struma River and the natural processes leading to the formation of free from shrub and trees sand banks and river deposits along the river.

2.2. Conservation of *Ciconia ciconia* nests and population (the species breeds on poles and roofs of buildings):

This includes the following specific objectives related to the biotic, abiotic characteristics of the area, natural processes in the area, threats and impacts:

- Protection of nests from direct damage and destruction;
- Undertaking measures to support the safe nesting of the species in settlements, including the securing of nests on electricity grid poles;
- To meet feeding requirements, by protecting and restoring wetlands.

3. Objectives related to the conservation of characteristic elements of the landscape and their abiotic and biotic characteristics (open natural habitats, trees and shrubs and their mosaic, vineyards and orchards, woodlands and forests, rivers and riparian habitats, land slopes and banks, artificial structures) essential to the populations of bird species.

3.1. Conservation of species nesting in grasslands and other grassed areas with scattered tree and shrub vegetation:

- Conservation of the species *Hippolais olivetorum*, *Lanius collurio*, *Lanius minor*, *Lanius nubicus*, *Sylvia nisoria*, *Emberiza hortulana*, *Lullula arborea* and their habitats. These species inhabit grassland habitats overgrown with scattered tree and shrub vegetation and pure shrub habitats.

- Pastures with scattered woody-shrub vegetation are habitat feeding places during nesting and migration of *Aegypius monachus*, *Gyps fulvus*, *Neophron percnopterus*, *Aquila chrysaetos*, *Aquila pomarina*, *Hieraaetus pennatus*, *Circaetus gallicus*, *Falco peregrinus*, *Falco cherrug*, *Falco biarmicus*, *Falco tinnunculus*, *Pernis apivorus*, *Buteo rufinus*, *Buteo buteo*, *Bubo bubo*, *Merops apiaster*.
- These are also breeding habitats of the following biome-restricted Mediterranean species: listed in the standard data form as “other important species: *Sylvia cantillans*, *Sylvia melanocephala*, *Emberiza melanocephala*, *Emberiza cirrus*, and the species *Lanius senator*.

This includes the following specific objectives related to the biotic, abiotic characteristics of the area, natural processes in the area, threats and impacts:

- In complexes or mosaics with herbaceous, shrub, and tree vegetation, the natural and semi-natural processes and specific structures shall be protected in such habitats. At a minimum, this includes:
 - encouraging the maintenance of shrub grasslands through traditional grazing, rather than through mechanical, burning or other destruction of shrubs;
 - maintaining the type (methods, species and breeds of animals) and intensity of grazing that does not damage the structure and the function of grassland habitats and, at the same time, allow prevent succession to a pure shrub or forest ecosystems.
- Conservation of the soil and hydrological conditions and characteristics natural to these habitats.
- Protection from melioration that may lead to changes in these characteristics, including the artificial introduction of nutrients or other pollution;
- Protection of grassland habitats and their natural boundaries with other ecosystems from fragmentation - taking into account characteristic species of this habitats, including fencing, build up of adjacent areas, etc.
- Encourage the restoration of grassland habitats with scattered shrub vegetation on other abandoned agricultural land.

3.2. Conservation of species nesting in wet and mesophilous grasslands:

- Conservation of the species *Lullula arborea*, *Crex crex*, *Emberiza hortulana*, represented in the area with breeding populations and their habitats. They are included in Appendices 2 and 3 of the Biodiversity Act and the Corncrake (*Crex crex*) in the Red Data Book for Bulgaria. They nest in wet and mesophilous grasslands, often in depressions, near scrub or forest habitats. Their habitats include:
 - wet riparian meadows - breeding habitats of *Crex crex*;
 - Wet and mesophytic hay meadows in the mid-montane belt of the zone - breeding habitats of *Crex crex*, *Lullula arborea* and *Emberiza hortulana*.
- The wet and mesophyll grasslands provide feeding habitat during nesting and migrations of *Aegypius monachus*, *Gyps fulvus*, *Neophron percnopterus*, *Aquila chrysaetos*, *Aquila*

pomarina, Hieraaetus pennatus, Circaetus gallicus, Falco peregrinus, Falco cherrug, Falco biarmicus, Falco tinnunculus, Pernis apivorus, Buteo rufinus, Buteo buteo, Bubo bubo.

This includes the following specific objectives related to the biotic, abiotic characteristics of the area, natural processes in the area, threats and impacts:

- Conservation in the SPA of the area covered by each of the two sub-types of suitable habitats;
- Conservation of the natural soil and hydrological conditions and characteristics;
- Maintenance of these habitats through mowing considering the timing and intensity in relation with the biology of the key species.

3.3. Conservation of species nesting in orchards, vineyards, etc. agricultural areas:

- Conservation of the species *Dendrocopos syriacus, Jynx torquilla, Emberiza hortulana, Lullula arborea, Hippolais olivetorum, Lanius collurio, Sylvia nisoria*

This includes the following specific objectives related to the biotic, abiotic characteristics of the area, natural processes in the area, threats and impacts:

- Prevention of intensification of use of this type habitats relative to their condition at the time of the zone's designation.
- Encouraging the nature-friendly use and practices of these lands, which may at least include:
 - Conservation and restoration of old and hollow fruit trees, hedgerows, and groups of natural woody shrub vegetation in agricultural lands;
 - eliminating the constant plowing of the areas;
 - creation of shelters and breeding areas;
 - application of organic management methods.

3.4. Conservation of other species nesting in forests:

- *Accipiter nisus, Buteo buteo, Falco subbuteo* - nest in forests.
- *Coracias garrulus* - nests in hollow trees in riparian and valley forests;
- *Alcedo atthis* - breeding habitat in riparian forest.
- *Caprimulgus europaeus* - nests on the ground in woodland and scrub
- *Jynx torquilla, Dendrocopos syriacus*

This includes the following specific objectives related to the biotic, abiotic characteristics of the area, natural processes in the area, threats and impacts:

- Maintain a multi-aged forest structure and canopy, as close as possible to natural;
- Encouraging the reduction of areas occupied by forest artificial plantations and restoration of natural forest habitats;
- In forest management, achieve a minimum average age of the forests 60 years for oak and 80 years for beech, hornbeam and coniferous forests;
- Protection of *Falco subbuteo* nests (the species is rare in south-western Bulgaria)

3.5. Conservation of the species in riverine, riparian habitats and water bodies:

- *Alcedo atthis* -feeding habitats in rivers.
- *Actitis hypoleucos*, *Charadrius dubius* - breeding and feeding habitats in sand and gravel banks and during migration.
- *Ciconia nigra* - feeding habitats during breeding and in-migration.
- *Ardea cinerea* - feeding habitat during migrations.
- *Anas platyrhynchos*, *Gallinula chloropus* - breeding and feeding habitats in standing pools and slow-flowing side arms of the Struma River.

This includes the following specific objectives related to the biotic, abiotic characteristics of the area, natural processes in the area, threats and impacts:

- Protection and/or restoration of natural hydromorphological conditions of watercourses and water bodies: For unaffected areas as of 1 January 2007, maintenance of natural hydromorphological conditions and water quantities; and those with altered conditions - restoration to as close as possible to natural conditions. For rivers with altered water quantity as of 1.01.2007, ensuring a minimum permissible runoff of not less than 30% of the average annual water quantity (calculated on 1 January 2007) to the point of water abstraction or flow regulation;
- Conservation and restoration of the natural degree of saprobitity and avoiding other pollution, including that coming from outside the water body or SPA;
- Protecting:
 - the natural character of the river bed and bank, including the breeding and other habitats at the banks of water bodies;
 - Protection from damage due to permanent direct destruction or logging of natural riparian forests and especially those including species of Oriental Plane, Black Alder, White Poplar, Black Poplar and Willows.

3.6. Conservation of species nesting in steep earth and sandy slopes:

- *Alcedo atthis*, *Riparia riparia* - nesting habitats in riparian earth and sandy slopes.
- *Merops apiaster* - nesting habitats in earth and sandy slopes, including riparian.

This includes the following specific objectives related to the biotic, abiotic characteristics of the area, natural processes in the area, threats and impacts:

- Protection from destruction, disturbance and/or displacement of all localities with nests and nesting holes and of earth and sandy slopes, which are potential new nesting sites.

3.7. Conservation of species nesting in settlements and/or artificial facilities:

- *Ciconia ciconia* - nests on poles and roofs of buildings
- *Falco tinnunculus* - nests in buildings, old raven nests in trees and electricity poles.

This includes the following specific objectives related to the biotic, abiotic characteristics of the area, natural processes in the area, threats and impacts:

- Protection of nests from direct damage and destruction;
- Taking measures to support the safe nesting of *Ciconia ciconia* in settlements, including safe nesting on poles;
- When building public properties, planning suitable niches for nesting sites for *Falco tinnunculus*;
- Meeting feeding requirements of *Ciconia ciconia* through protection and restoration of wetlands.

4. Common objectives for all species of Annex 2 of the Biodiversity Act and their habitats.

4.1. Protection of the area occupied by the habitats of species of Annex 2 and 3 of the Biodiversity Act - subject to conservation in the SPA from reduction and restoration of such areas where necessary.

4.2 Reference populations and habitat areas to achieve the goals of SPA should be determined concerning their area and size at the date of submission of the scientific proposal for designation of the site, but no later than 1 January 2007 and including areas of habitat subsequently restored. Natural succession/development in other habitats of birds subject to conservation, which has a higher priority, should also be reflected in the reference area.

4.3 Conservation and restoration of habitat quality, also the vitality of the bird species populations from Annex 2 and 3 of the Biodiversity Act in their habitats.

4.4 Protection of the birds habitats from pollution or the use of professional plant protection products and biocides.

4.5 Protection of the populations of bird species from poaching.

4.6 Protect all habitat types from burning.

4.7 Protect from the introduction and establishment of alien and invasively introduced species.

4.8 For carrion bird species - *Gyps fulvus*, *Neophron percnopterus*, *Aegypius monachus*, *Aquila chrysaetos*, *Buteo rufinus*, *Buteo buteo* – prevention from using of poison baits and the undertaking of effective control and educational measures to achieve the objective.

III. The revised Site Specific Conservation Objectives (SSCOs) of the SCI/SAC “Kresna-Iindentzi” BG0000366

Only SSCO for 6 animal species important to the Appropriate Assessment under Article 6.3 of the Struma Motorway project are included here, the objectives of which were revised compared to the original proposal that came from a project of the Ministry of Environment and Water under the supervision of EU experts. Changes include:

- removal of description of specific defragmentation measures, which are not SSCO, but mitigation measures, which effectiveness is subject of Appropriate Assessment under Article 6.3;
- correction of the reference values and the areas of the habitats of the species;
- more serious corrections for the species *Ursus arctos* and introduction of adequate scientific information about the biology of species.

The working group concluded that all SSCO have identified problems and need further improvement and corrections.

Specific goals for *Elaphe quatuorlineata* (Four-lined Snake)

Parameter	Unit of measurement	Target value	Additional information	Zone specific conservation goals
<p>Population: Species distribution</p>	<p>Number of cells of grid 1x1 km with proven presence of the species</p>	<p>At least 10 cells of grid 1x1 km with proven presence of the species</p>	<p>The target value (ten squares) represents the sum of all unique squares of UTM grid with resolution 1x1 km, in which the species has been observed at least once in the period 1987-2020 (based on an analysis of the whole accessible information – scientific publications, reports on completed projects, database of experts on the type of species, etc.). The list of these squares is as follows: 1kmE5412N2167, 1kmE5412N2168, 1kmE5412N2169, 1kmE5412N2170, 1kmE5412N2172, 1kmE5412N2173, 1kmE5413N2165, 1kmE5413N2166, 1kmE5414N2170, 1kmE5415N2163.</p> <p>It is important to state that the available data on the species in the zone has been collected mainly for the purposes of monitoring of the death rate of specimen along E79, while there has been a considerable deficiency of data regarding the species habitats of the species. This set of data is not representative for defining the distribution of the species in the zone. It is possible that its numbers in the suitable habitats is considerably higher. On this account an intermediate goal has been set.</p>	<p>Sustaining the species distribution within at least 10 cells of grid 1x1 km in suitable habitats in the zone</p> <p>Intermediate goal: Establish the distribution of the population in the zone in the areas of suitable habitats of the species outside of the already known distribution squares by means of field studies by 2025</p>

Parameter	Unit of measurement	Target value	Additional information	Zone specific conservation goals
Population: Size of the population (relative number)	Number of specimen per 1000 m linear transect	At least 0.14 specimen per 1000 m linear transect	<p>As per the information in the general report for the species published in the informational system of Natura 2000 protected areas network, the country's reference population is 0.14 specimen on 1000 m linear transect. If the species is distributed mainly in the area where the protected zone is, this relative density is the reference one for the zone.</p> <p>The number of found killed specimen on E79 has fallen down since 2015, but there is not sufficient data to conclude that this is due to a diminished number of the population in the last years. It is possible that some of the facilities barring the entry of animals, built after 2015, have contributed to this result, although some of them are not in a good condition at the moment. In order to clarify this, more data needs to be collected, to establish the present number of the population of the species in the zone. For this reason an intermediate goal is set.</p>	Intermediate goal: Establish the size of the population of the species in the zone by means of field studies by 2025. These field studies should include the species habitats in the whole zone and not be restricted only along E79
Species habitat: Total area of the species suitable habitats in the protected zone	ha	At least 14022.22 ha	According to the spatial model presented in the specific report on the project "Mapping and establishing of the conservation state of natural habitats and species – phase I", the optimal habitats of the species in the protected area are 1653.24 ha (3.4% of the area of the zone), the suitable ones – 4040,95 ha (8,32%), the low-suitability – on 8308.03 ha (17.70%); the remaining 34594.21 ha (71.19%) are probably not suitable for the species.	Maintain the area of the suitable habitats of the species in the protected zone within at least 14 022.22 ha

Parameter	Unit of measurement	Target value	Additional information	Zone specific conservation goals
<p>Species habitat: Quality of the suitable habitats - Density of the first forest floor in the suitable forest habitats</p>	From 0 to 1	<p>Up to 0.5 in forests, which are not natural habitats included in the Habitats Directive</p> <p>For forest habitats included in the Habitats Directive the target value should be in line with the target value for the specific type of habitat</p>	<p>The species preferred habitats are sparse forests and xerophyte bushes on dry, gravelly or rocky terrains. This ensures sufficient sunshine and availability of sufficient room for basking in the sun. In this relation, the canopy of the first forest floor should not surpass 0.5.</p> <p>In order to harmonise the target values by this parameter for the species with the target values of forest habitats, it is necessary to delineate the following:</p> <p>The target value for forests that are not forest habitats as per the Habitats Directive should be: up to 0.5;</p> <p>The target value for forests that are forest habitats as per the Habitats Directive should correspond to the target value of the specific type of habitat. As much as this is a threshold value for forest habitats, calculated as an average, a part of the forest habitats may correspond to the requirement for canopy up to 0.5.</p>	<p>Maintain the canopy of the first forest tier in the suitable forest habitats:</p> <p>Up to 0.5 in forests that are not natural habitats included in the Habitats Directive;</p> <p>For forest habitats included in the Habitats Directive the target value should correspond to the target value for the corresponding type of habitat</p>
<p>Habitat of the species: Quality of the suitable habitats of the species in the zone – mode of management of pastures and meadows</p>	% extensively managed pastures and meadows, as part of the habitat of the species	100 % of the pastures and meadows, part of the habitat of the species, are managed extensively.	The species inhabits open spaces and pastures (steppe and drought-tolerant grass varieties). The extensive mode of management of the pasture habitats is of deciding significance, in order for them to be suitable for feeding. This requires pasture for domestic animals (0,3-1 animal units/ha), mowing of the meadows, as well as less use of fertilisers and other chemicals, which could lead to disappearance of the prey of the species..	Improving the quality of the suitable species habitat in the zone towards reaching the target value of 100% extensive management of pastures and meadows, part of the species suitable habitat

Parameter	Unit of measurement	Target value	Additional information	Zone specific conservation goals
			The type of land use in the suitable habitats for the species corresponds to the pointed characteristics, but not all areas are managed extensively..	
<p>Species habitat: Quality of the species suitable habitats in the zone – coverage with bush vegetation</p>	<p>% coverage with bush vegetation</p>	<p>Between 15% and 20% coverage with bush vegetation, except for areas that coincide with natural habitats 6510 and 6520 outside of the boundaries of the Kresna protected zone by the Birds Directive</p> <p>Between 8% and 10% in areas that coincide with natural habitats 6510 and 6520 outside of the boundaries of Kresna protected zone by the Birds Directive</p>	<p>The bush vegetation in the suitable species habitats should not be dense, but optimally there should be a mosaic habitat with sparse bushes/trees. Since the species habitats partially coincide with grassland habitats, subject to protection in the zone, the target values of the parameters need to be harmonized. Such harmonization needs to be implemented for habitats 6510 and 6520, while for the area of their inhabitation within the boundaries of Kresna protected zone the target value is set between 15% and 20% and outside of the boundaries of Kresna protected zone - between 8 % and 10%.</p>	<p>Maintain bushes vegetation coverage as follows: Between 15% and 20% bushes coverage, except for areas that coincide with natural habitats 6510 and 6520 outside of the boundaries of Kresna protected zone by the Birds Directive Between 8% and 10% in areas that coincided with natural habitats 6510 and 6520 outside of the boundaries of Kresna protected zone by the Birds Directive</p>

Parameter	Unit of measurement	Target value	Additional information	Zone specific conservation goals
Species habitat: Species habitats connectivity	Availability / absence of artificial barriers (fences, buildings, impassable linear infractrue), causing barrier effect when crossing suitable for the species habitats in the zone	Absence of a considerable barrier effect in at least 20% of the length of the existing artificial barriers	Absence of a considerable barrier effect caused by existing linear infrastructure facilities means absence of artificial barriers (impassable or difficult to pass linear infrastructure) to the movement of specimen of the species within its suitable habitat. Given the intensive traffic, E79 route represents a difficult to pass barrier for the species, therefore it fragments the habitats along its whole length in the protected zone (i.e. 15,5 km, not including the two tunnels and three bridges over the river of Struma).	Recovery of the species habitats connectivity along the road of E79 in the zone

Specific goals for *Zamenis situla* (Leopard Snake)

Parameter	Unit of measurement	Target value	Additional information	Zone specific conservation goals
<p>Population: Species distribution</p>	<p>Number of cells of grid 1x1 km with proven presence of the species</p>	<p>At least 17 UTM squares 1x1 km with proven species presence</p>	<p>The target value (17 squares) represents the sum of all unique squares of UTM grid with resolution of 1x1 km, in which the species has been observed at least once in the period 1988-2020 (based on an analysis of the whole accessible information – scientific publications, reports on executed projects, database of experts of the type of species, etc.).</p> <p>This value is to be taken as representative of a good condition of the species by the parameter in question and there is no reason to conclude that the species is extinct from any of the corresponding squares. The squares are: 1kmE5411N2165, 1kmE5411N2174, 1kmE5412N2168, 1kmE5412N2169, 1kmE5412N2170, 1kmE5412N2171, 1kmE5412N2173, 1kmE5412N2174, 1kmE5413N2167, 1kmE5413N2168, 1kmE5410N2177, 1kmE5411N2175, 1kmE5412N2167, 1kmE5412N2172, 1kmE5412N2175, 1kmE5413N2165 1kmE5413N2166</p> <p>It is important to state that the available data related to the species in the zone has been collected mainly for the purposes of monitoring the death rate of specimen along E79, and there is a considerable deficiency of data from the suitable for the species habitats. This data packet is not representative for defining the distribution of the species in the zone. It is possible that its number</p>	<p>Maintain distribution of the population in at least 17 cells of grid 1x1 km in suitable habitats in the zone</p> <p>Intermediate goal: Establish the distribution of the population in the zone for the areas with suitable habitats outside of the already known squares of distribution by means of conducting field studies by 2025</p>

Parameter	Unit of measurement	Target value	Additional information	Zone specific conservation goals
			in the suitable habitats e considerably higher. An intermediate goal has been set on account of this.	
Population: Size of the population (relative number)	Number of specimen per 1000 m linear transect	At least 0.13 specimen per 1000 m linear transect	<p>According to the information in the general report for this species, published in the site of the information system of Natura 2000 protection network, the reference population for the country is 0.13 specimen per 1000 m linear transect.</p> <p>According to the information in the special report for the zone published in the site of the information system of Natura 2000 protection network, the established value for the relative number of the species in the zone is 0.13 specimen per 1000 m linear transect. It equals the reference average value for the country.</p> <p>The number of the found killed specimen on E79 has fallen down since 2015, but there is not sufficient data to point that this is due to the diminished number of the population in the last years. It is possible that some of the facilities barring the entry of animals, built after 2015, have contributed to this result, although some of them are not in a good condition at the moment. To clarify this, more data needs to be collected, as to establish the present number of the population of the species in the zone. For this reason an intermediate goal is set.</p>	Intermediate goal: Establish the size of the population of the species in the zone by means of field studies by 2025. These field studies should include the species habitats in the whole zone and not to be restricted only along the way of E79
Species habitat: Total area of the species suitable	ha	Not less than 8 421,18 ha	According to the spatial model, presented in the special report on the project “Mapping and establishing the conservation state of natural habitats and species – phase I”, the optimal habitats of the species in the protected zone are 1647,42 ha (3,39% of the area of	Maintain the area of the species suitable habitats in the

Parameter	Unit of measurement	Target value	Additional information	Zone specific conservation goals
habitats in the protected zone			the zone), the suitable – on 2599,92 ha (5,35%), the less suitable – on 4173,84 ha (8,59%); and the remaining 40175,24 ha (82,67%) are probably not suitable for the species.	protected zone within at least 8 421,18 ha
Species habitat: Quality of the suitable habitats - Density of the first forest floor in the suitable forest habitats	From 0 to 1	Up to 0.5 in forests that are not natural habitats, included in the Habitats Directive For forest habitats included in the Habitats Directive the target value should correspond to the target value of the concrete type of habitat	The species preferred habitats are sparse forests and xerophyte bushes on dry, gravelly or rocky terrains. This ensures sufficient sunshine and availability of sufficient room for basking in the sun. In this relation, the canopy of the first forest floor should not surpass 0.5. In order to harmonise the target values by this parameter for the species with the target values of forest habitats, it is necessary to delineate the following: The target value for forests that are not forest habitats as per the Habitats Directive should be: up to 0.5; The target value for forests that are forest habitats as per the Habitats Directive should correspond to the target value of the specific type of habitat. As much as this is a threshold value for forest habitats, calculated as an average, a part of the forest habitats may correspond to the requirement for canopy up to 0.5.	Maintain the canopy of the first forest tier in the suitable forest habitats: Up to 0.5 in forests that are not natural habitats included in the Habitats Directive; For forest habitats included in the Habitats Directive the target value should correspond to the target value for the corresponding type of habitat
Habitat of the species: Quality of	% extensively managed	100 % of the pastures and	The species inhabits open spaces and pastures (steppe and drought-tolerant grass varieties). The extensive mode of	Improving the quality of the suitable species

Parameter	Unit of measurement	Target value	Additional information	Zone specific conservation goals
the suitable habitats of the species in the zone – mode of management of pastures and meadows	pastures and meadows, as part of the habitat of the species	meadows, part of the feeding habitat of the species, are managed extensively.	management of the pasture habitats is of deciding significance, in order for them to be suitable for feeding. This requires pasture for domestic animals (0,3-1 animal units/ha), mowing of the meadows, as well as less use of fertilisers and other chemicals, which could lead to disappearance of the prey of the species.. The type of land use in the suitable habitats for the species corresponds to the pointed characteristics, but not all areas are managed extensively..	habitat in the zone towards reaching the target value of 100% extensive management of pastures and meadows, part of the species suitable habitat
Species habitat: Quality of the species suitable habitats in the zone – coverage with bush vegetation	% coverage with bush vegetation	Between 15% and 20% bush vegetation coverage, except for areas that coincide with natural habitats 6510 and 6520 outside of the boundaries of the Kresna protected zone by the Birds Directive Between 8% and 10% in	The bush vegetation in the suitable species habitats should not be dense, but optimally there should be a mosaic habitat with sparse bushes/trees. Since the species habitats partially coincide with grassland habitats, subject to protection in the zone, the target values of the parameters need to be harmonized. Such harmonization needs to be implemented for habitats 6510 and 6520, while for the area of their inhabitation within the boundaries of Kresna protected zone the target value is set between 15% and 20% and outside of the boundaries of Kresna protected zone - between 8 % and 10%.	Maintain bushes vegetation coverage as follows: Between 15% and 20% bushes coverage, except for areas that coincide with natural habitats 6510 and 6520 outside of the boundaries of Kresna protected zone by the Birds Directive Between 8% and 10% in areas that coincided with natural habitats 6510 and 6520 outside of the boundaries of

Parameter	Unit of measurement	Target value	Additional information	Zone specific conservation goals
		<p>areas that coincide with natural habitats 6510 and 6520 outside of the borders of Kresna protected zone by the Birds Directive</p>		<p>Kresna protected zone by the Birds Directive</p>
<p>Species habitat: Species habitats connectivity</p>	<p>Availability / absence of artificial barriers (fences, buildings, impassable linear infractrue), causing barrier effect when crossing suitable for the species</p>	<p>Absence of a considerable barrier effect in at least 20% of the length of the existing artificial barriers</p>	<p>Absence of a considerable barrier effect caused by existing linear infrastructure facilities means absence of artificial barriers (impassable or difficult to pass linear infrastructure) to the movement of specimen of the species within its suitable habitat. Given the intensive traffic, E79 route represents a difficult to pass barrier for the species, therefore it fragments the habitats along its whole length in the protected zone (i.e. 15,5 km, not including the two tunnels and three bridges over the river of Struma).</p>	<p>Recovery of the species habitats connectivity along the road of E79 in the zone</p>

Parameter	Unit of measurement	Target value	Additional information	Zone specific conservation goals
	habitats in the zone			

Specific goals for *Testudo graeca* (Greek Tourtoise)

Parameter	Unit of measurement	Target value	Additional information	Conservation goals specific for the zone
<p>Population: Species distribution</p>	<p>Number of cells of grid 1x1 km with proven presence of the species</p>	<p>At least 38 cells of grid 1x1 km with proven presence of the species</p>	<p>The target value (38) represents the sum of all unique squares of UTM grid with resolution 1x1 km, in which the species has been observed at least once in the period 1991-2020 (based on an analysis of the whole accessible information – scientific publications, reports on completed projects, database of experts on the type of species, etc.). This value is to be considered as representative of the good condition of the species per the parameter in question, and there is no reason to conclude that presently the species has disappeared from some of the corresponding squares. The list of these squares is as follows: 1kmE5400N2155, 1kmE5411N2166, 1kmE5411N2172, 1kmE5411N2173, 1kmE5411N2174, 1kmE5411N2175, 1kmE5411N2176, 1kmE5412N2166, 1kmE5412N2167, 1kmE5412N2168, 1kmE5412N2169, 1kmE5412N2170, 1kmE5412N2171, 1kmE5412N2172, 1kmE5412N2173, 1kmE5412N2174, 1kmE5412N2178, 1kmE5413N2163, 1kmE5413N2165, 1kmE5413N2166, 1kmE5413N2167, 1kmE5413N2168, 1kmE5413N2178, 1kmE5414N2155, 1kmE5414N2161, 1kmE5414N2176, 1kmE5415N2155, 1kmE5415N2156, 1kmE5415N2163, 1kmE5415N2165, 1kmE5416N2163, 1kmE5416N2164, 1kmE5417N2167, 1kmE5420N2154, 1kmE5420N2159, 1kmE5421N2158, 1kmE5422N2158, 1kmE5423N2158</p>	<p>Sustain the distribution of the species within at least 38 UTM squares 1x1 km with proven presence of the species Intermediate goal: Establish the distribution of the population in the zone of the areas with suitable habitats for the species outside of the already known distribution squares by means of field studies by 2025</p>

Parameter	Unit of measurement	Target value	Additional information	Conservation goals specific for the zone
			<p>It is important to state that the available data related to the species in the zone has been collected mainly for the purposes of monitoring the death rate of specimen along E79, and there is a considerable deficiency of data from the suitable for the species habitats. This data package is not representative for defining the distribution of the species in the zone. It is possible that its number in the suitable habitats is considerably higher. An intermediate goal is set on account of this.</p>	
<p>Population: Size of the population (relative number)</p>	<p>Number of specimen per 1000 m linear transect</p>	<p>At least 0.57 specimen per 1000 m linear transect</p>	<p>As per the information in the general report for the species published in the informational system of Natura 2000 protected areas network, the country's reference population is 0,52 specimen per 1000 m linear transect.</p> <p>In the specific report for the zone published in the site of the informational system of Natura 2000 protected zones the established value for the relative number of the species in the zone is 0.57 specimen per linear transect. It is higher than the reference average value for the country.</p> <p>The number of found killed specimen of the species on E79 route has gone down since 2015, but there is not sufficient data to support a conclusion that this is due to a diminished of the size of the population in the last years. It is possible that the facilities built after 2015 for preventing animals from crossing the road have contributed to this result, although some these facilities are not in a good condition at the moment. In order to clarify this, data needs</p>	<p>Intermediate goal: Establish the size of the population of the species in the zone by means of field studies by 2025. These field studies should include species habitats in the whole zone and should not be restricted to only along the E79 route.</p>

Parameter	Unit of measurement	Target value	Additional information	Conservation goals specific for the zone
			to be collected to establish the present size of the population of the species in the zone. For that reason an intermediate goal is set.	
Population: Species age structure of the population	% sexually immature specimen of the total number of registered specimen	At least 10% of sexually immature specimen of the total number of registered specimen	The age structure of the population is an important parameter, providing information regarding the reproduction of the species in the protected zone and from there - the population viability in it. As per Methodologies for evaluation of the condition of amphibians and reptiles, the reference value for good condition is $\geq 10\%$. According to the information from the special report for the zone, publish in the site of the informational system of the Natura 2000 protection network, 16.67% of the established specimen are sexually immature. There isn't data of unfavourable changes in the age structure of the species.	Maintaining the age structure of the species of at least 10% sexually immature specimen of the total registered specimen
Species habitat: Total area of the species suitable habitats in the protected zone	ha	Not less than 15609.72 ha	As per the spatial model from the special report on the project "Mapping and establishing the conservation state of the natural habitats and species – phase I", the optimal habitats of the species in the protected zone are 4368.81 ha (8.99% of the area of the zone), the suitable – on 4239.49 ha (8.72%), less suitable – on 7001.42 ha (14.41%); the remaining 32986.71 ha (67,88%) are probably not suitable for the species.	Maintain the area of the species suitable habitats in the protected zone at no less than 15609.72 ha
Species habitat: Quality of the suitable habitats -	From 0 to 1	Up to 0.5 in forests that are not natural	The species preferred habitats are open spaces with grass and bush vegetation, forests outskirts, meadows, sparse deciduous forests (especiall oak) and others. This ensures sufficient sun warmth and	Maintain the canopy of the first forest floor in

Parameter	Unit of measurement	Target value	Additional information	Conservation goals specific for the zone
Density of the first forest floor in the suitable forest habitats		habitats included in the Habitats Directive For forest habitats included in the Habitats Directive, the target value should correspondent to the target value for the concrete type of habitat	availability of spaces for basking in the sun. In this relation, the canopy of the first forest floor in forest habitats should not exceed 0.5. In order to harmonise the target value by this parameter for the species with the target values for the forest habitats, it is necessary to make the following distinction: For forests that are not forest habitats as per the Habitats Directive, the target value should be: up to 0.5; For forest habitats as per the Habitats Directive the target value should be in line with the concrete type of habitat. As much as this is a threshold value calculated as an average, a part of the forest habitats may satisfy the requirement for quality up to 0.5.	suitable forest habitats with the size of: Up to 0,5 in forests which are not natural habitats included in the Habitats Directive; For forest habitats included in the Habitats Directive the target value should be in line with the target value for the concrete type of habitat
Habitat of the species: Quality of the suitable habitats of the species in the zone – mode of management of pastures and meadows	% extensively managed pastures and meadows, as part of the habitat of the species	100 % of the pastures and meadows, part of the habitat of the species are managed extensively.	The species inhabits open spaces and pastures (steppe and drought-tolerant grass varieties). The extensive mode of management of the pasture habitats is of deciding significance, in order for them to be suitable for food hunting. This requires pasture for domestic animals (0,3-1 animal units/ha), meadows mowing, as well as less use of fertilisers and other chemicals. The type of agriculture in the suitable habitats for the species corresponds to the pointed characteristics, but not all land is managed extensively.	Improve the quality of the species suitable habitat in the zone to reaching the target value of 100% extensive management of pastures and meadows, part of the suitable habitat for the species

Parameter	Unit of measurement	Target value	Additional information	Conservation goals specific for the zone
<p>Species habitat: Quality of the species suitable habitats in the zone – coverage with bush vegetation</p>	<p>% coverage with bush vegetation</p>	<p>Between 15% and 20% coverage with bush vegetation, except for areas which coincide with natural habitats 6510 and 6520 outside of the boundaries of Kresna protected zone per the Birds Directive. Between 8% and 10% of the areas which coincide with natural habitats 6510 and 6520 outside of the boundaries of</p>	<p>In species suitable habitats the bush vegetation should not be dense, but an optimal habitat would have open mosaic structure with sparse bushes/trees. Since the habitats coincide partly with the grassland habitats, protected in the zone, it is necessary to harmonise the target values of the parameters. Such harmonization is necessary to be made for habitats 6510 and 6520, while for the region of their distribution within the boundaries of Kresna protected zone as per the Birds Directive the target value is set between 15% and 20%, and outside of the boundaries of Kresna protected zone – between 8% and 10%</p>	<p>Maintain bush vegetation coverage as follows: Between 15% and 20% coverage with bush vegetation, except for areas which coincide with natural habitats 6510 and 6520 outside of the boundaries of Kresna protected zone by the Birds Directive Between 8% and 10% in areas, which coincide with natural habitats 6510 and 6520 outside of the boundaries of Kresna protected zone by the Birds Directive</p>

Parameter	Unit of measurement	Target value	Additional information	Conservation goals specific for the zone
		Kresna protected zone per the Birds Directive		
Species habitat: Species habitats connectivity	Availability / absence of artificial barriers (fences, buildings, impassable linear infractrue), causing barrier effect when crossing suitable for the species habitats in the zone	Absence of a considerable barrier effect in at least 20% of the length of the existing artificial barriers	Absence of a considerable barrier effect caused by existing linear infrastructure facilities means no existing artificial barriers (impassable or hard to pass linear infrastructure) for movement of specimen of the species in its suitable habitat. Given the intensive traffic, E79 route is a difficult to pass barrier for the species, therefore it fragments the habitat of the species along its whole length in the protected zone(i.e. 15.5 km, the two tunnels and the three bridges over the river of Struma not included).	Recovery of the species habitats connectivity along the road of E79 in the zone

Specific goals for *Testudo hermanni* (Hermann's Tortoise)

Parameter	Unit of measurement	Target value	Additional information	Zone specific conservation goals
<p>Population: Species distribution</p>	<p>Number of cells of grid 1x1 km with proven presence of the species</p>	<p>At least 38 cells of grid 1x1 km with proven presence of the species</p>	<p>The target value (38 squares) represents the sum of all unique squares of UTM grid with resolution 1x1 km, in which the species has been observed at least once in the period 1991-2020 (based on an analysis of all accessible information in the form of scientific publications, reports on executed projects, personal database of the author, etc). This value is to be regarded as representative of a good condition of the species by the considered parameter and there is no reason to conclude that the species is presently extinct from some of the corresponding squares. The specified squares are as follows: 1kmE5408N2166, 1kmE5409N2167, 1kmE5410N2176, 1kmE5410N2177, 1kmE5411N2166, 1kmE5411N2171, 1kmE5411N2172, 1kmE5411N2174, 1kmE5411N2175, 1kmE5411N2176, 1kmE5411N2177, 1kmE5412N2167, 1kmE5412N2168, 1kmE5412N2169, 1kmE5412N2170, 1kmE5412N2171, 1kmE5412N2172, 1kmE5412N2173, 1kmE5412N2174, 1kmE5412N2178, 1kmE5413N2165, 1kmE5413N2166, 1kmE5413N2167, 1kmE5413N2168, 1kmE5413N2176, 1kmE5414N2155, 1kmE5414N2161, 1kmE5415N2155, 1kmE5415N2156, 1kmE5415N2165, 1kmE5415N2166, 1kmE5416N2155, 1kmE5416N2162, 1kmE5416N2163, 1kmE5416N2164, 1kmE5417N2173, 1kmE5420N2159, 1kmE5422N2158</p> <p>It is important to note that the available data for the species in the zone has been collected mainly for the purposes of monitoring of</p>	<p>Maintain the distribution of the population within at least 38 cells of grid 1x1 km in suitable habitats in the zone. Intermediate goal: Establish the distribution of the population in the zone for the areas with suitable habitats for the species outside of the already known squares of distribution, by means of field studies by 2025</p>

Parameter	Unit of measurement	Target value	Additional information	Zone specific conservation goals
			<p>the death rate of specimen along E79, and that there is deficiency of data from the suitable for the species habitats. This data package is not representative for establishing the distribution of the species in the zone. It is possible that its size in the suitable habitats is considerably higher. For that reason an intermediate goal has been set.</p>	
<p>Population: Size of the population (relative number)</p>	<p>Number of specimen per 1000 m linear transect</p>	<p>At least 0,71 specimen per 1000 m linear transect</p>	<p>As per the information from the general report on the species published in the sit of the informational system of Natura 2000 protected zones network, the reference population for the country is 0.71 specimen per 1000 m linear transect.</p> <p>As per the information from the special report for the zone, published in the site of the informational system of Natura 2000 protected zones network, the established value of relative size of the species in the zone is 0.62 specimen per 1000 1000 linear transect. It is lower than the average value for the country and therefore should be improved.</p> <p>The number of found killed specimen of the species on E79 has gone down since 2015, but there is not sufficient data to conclude that this is due to lower size of the population in the last years. It is possible that the facilities built after 2015 with the goal of preventing animals from the road has contributed to this result, although some of the facilities are not in a good condition now. In order to clarify this, it is necessary that more data is collected, so that the actual size of the population of the species in the zone is established. An intermediate goal is set on that account.</p>	<p>Intermediate goal: Establish the size of the population of the species in the zone by means of conducting field studies by 2025. These field studies should include the habitats of the species in the whole zone and should not be restricted only along E79 route.</p>

Parameter	Unit of measurement	Target value	Additional information	Zone specific conservation goals
<p>Population: Species age structure of the population</p>	<p>% sexually immature specimen of the total number of registered specimen</p>	<p>At least 10% of sexually immature specimen of the total number of registered specimen</p>	<p>The age structure of the population is an important parameter, supplying information regarding the reproduction of the species in the protected zone and thereof – the vitality of the population in it. As per Methodologies for evaluation of the state of the species amphibians and reptiles, the reference value is $\geq 10\%$ for good condition. As per the information in the specific report for the zone, published in the site of the informational system of the Natura 2000 protected zones network, 16% of the established specimen are sexually immature. There is not any data of unfavourable changes in the age structure of the species.</p>	<p>Maintain the age structure of the species at at least 10% sexually immature specimen of the total number registered specimen.</p>
<p>Species habitat: Total area of the species suitable habitats in the protected zone</p>	<p>ha</p>	<p>At least 22019.59 ha</p>	<p>As per the spatial model, presented in the special report on the project “Mapping and establishing the conservation state of natural habitats and species – phase I”, the optimal habitats of the species in the protected zone are 6661.44 ha (13.71% of the area of the zone), the suitable – 8564.56 ha (17.62%), less suitable – 6793.59 ha (13.98%); the remaining 26576.83 ha (54.69% are probably not suitable for the species.</p>	<p>Maintain the area of the suitable habitats of the species in the protected zone within the size of at least 22019.59 ha</p>
<p>Species habitat: Quality of the suitable habitats - Density of the first forest floor</p>	<p>From 0 to 1</p>	<p>Up to 0.5 in forests that are not natural habitats included in the Habitats Directive</p>	<p>The species preferred habitats are open spaces with grass and bush vegetation, forests outskirts, meadows, sparse deciduous forests (especiall oak) and others. This ensures sufficient sun warmth and availability of spaces for basking in the sun. In this relation, the canopy of the first forest floor in forest habitats should not exceed 0.5.</p>	<p>Maintain the canopy of the first forest floor in suitable forest habitats with the size of: Up to 0,5 in forests which are not natural</p>

Parameter	Unit of measurement	Target value	Additional information	Zone specific conservation goals
in the suitable forest habitats		For forest habitats included in the Habitats Directive, the target value should correspondent to the target value for the concrete type of habitat	In order to harmonise the target value by this parameter for the species with the target values for the forest habitats, it is necessary to make the following distinction: For forests that are not forest habitats as per the Habitats Directive, the target value should be: up to 0.5; For forest habitats as per the Habitats Directive the target value should be in line with the concrete type of habitat. As much as this is a threshold value calculated as an average, a part of the forest habitats may satisfy the requirement for quality up to 0.5.	habitats included in the Habitats Directive; For forest habitats included in the Habitats Directive the target value should be in line with the target value for the concrete type of habitat
Species habitat: Species habitats connectivity	Availability / absence of artificial barriers (fences, buildings, impassable linear infracture), causing barrier effect when crossing suitable for the species habitats in the zone	Absence of a considerable barrier effect in at least 20% of the length of the existing artificial barriers	Absence of a considerable barrier effect caused by existing linear infrastructure facilities means no existing artificial barriers (impassable or hard to pass linear infrastructure) for movement of specimen of the species in its suitable habitat. Given the intensive traffic, E79 route is a difficult to pass barrier for the species, therefore it fragments the habitat of the species along its whole length in the protected zone(i.e. 15.5 km, the two tunnels and the three bridges over the river of Struma not included).	Recovery of the species habitats connectivity along the road of E79 in the zone

Specific goals for *Canis lupus* (Wolf)

Parameter	Unit	Target value	Additional information	SSCO
Population: Size of the population	Number of family pairs	At least 4	According to the specific report published on the Information system for the protected areas from ecological network Natura 2000, the specimen that inhabit the SAC “Kresna- Ilindentsi” are allocated in 4 family groups (packs): two in the east part and 2 in the west part. Each of them is formed of 1 family pair and their cubs and sometimes by grown up descendants or incorporated, not from the family group individuals, migrating from other packs. The structure and the dynamics of the wolf’s family group is complex and can vary from 2 to 20 wolves. The average number in the zone is about 4 wolves. Each family pair/ group guards its territory borders from the neighbors’.	To maintain the size of the population up to at least of 4 family pairs.
Habitat of the species: Area of the suitable habitats in the boundaries of the zone	ha	At least 31 083 ha	For the wolf’s species there is strict positive relation between the population’s density and the habitat quality. At the presence of/in case of more prey, the density of the population is higher. When the prey is scarce/insufficient, the wolf enlarges its territory in aim of finding such prey. According to the specific report published on the information site for the protected areas from ecological Natura 2000 network, the area of the potential habitats is valuated/estimated at 64% of the area’s zone (31 083 ha). Territories at the south part of the area give/ provide vast/huge habitats suitable for core zone/area (part of the potential habitat that provides the best resources and shelters/refuges) and cover/occupy area of 1 187 ha.	Improvement of the area of the potential habitats at the area in order to reach the initial range of 31 083 ha .

<p>Habitat of the species: Connectivity of the habitats</p>	<p>Area of sub-optimal habitats that provides connectivity for the optimal habitats</p>	<p>At least 11 302 ha</p>	<p>The wolves a species-generalist, relatively easy can move through terrains with different types of ground coverage. The specimen is sensible to eexpulsion/chasing (noise, light, traffic, human presence) especially if this happens on the spots/places suitable for feeding or near dens. Relatively less sensibility is shown towards habitats used only for migration or displacement of young cubs. The potential habitats at the zone/area are in good connectivity.</p> <p>The Struma river gorge provides connected habitats for the specimen and is functional bio-corridor that favors the connectivity between the local populations (in the east and west parts of the zone/area) which allow/ let the single individuals to move freely from Pirin Mountain to Vlahina Mountain.</p> <p>According to the specific report published on the information site for the protected areas from ecological Natura 2000 network, 11302 ha – or 23, 26% of the area is sub-optimum habitats that secures good connectivity with the optimum habitats.</p>	<p>Maintenance of the area with sub-optimum habitats that provides connectivity with the potential habitats of the specimen with area of 11 302 ha</p>
<p>Habitat of the species: Habitat that provides feeding potential for the specie</p>	<p>% of the protected area</p>	<p>At least 35% of the zone has high feeding potential And 23% supporting feeding potential</p>	<p>The size of the home range occupied by the wolves' family couple depends on the existing quantity and type of the prey. It can vary from even 30 km² to hundreds km² if the prey is scarce. The wolf is highly adaptable and flexible ecological specimen. He adapts relatively easily to the dynamic of the numbers of the prey. The quantity and quality of the feeding basement vary from different factors.</p> <p>According to the specific report published on the information site for the protected areas from ecological Natura 2000</p>	<p>Maintenance of at least 35% of the protected area with high feeding potential and 22,3% - with additional feeding potential</p>

			<p>network, the area has high feeding potential that amounts of 35.45% (17 227 ha) of the area of the protected zone. It is duty to ungulate/ hooved animals which are essential natural food for the specimen. High additional feeding potential is supported/provided mainly by wild rabbit which population is at good density of 22,3% (10 839 ha are with high additional feeding potential). The state/existence of the specimen in parameter is favorable/good.</p>	
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Specific goals for *Ursus arctos* (Brown Bear)

Parameter	Unit	Target value	Additional information	SSCO
Population: Size of the population	Number	At least 2-3 specimen	Field surveys done at the protected site confirm the presence of brown bear (2 or 3 specimen). Nowadays only the eastern part of the site is inhabited that is part of Pirin – mountainous and impenetrable place/territory. The habitats over there are relatively good and secure shelter and enough good feeding base for small number of bears and are tightly connected with the bordering protected zone 'Pirin'. Most probably the territories inhabited with bears at zone "Kresna-Ilindentsi" are partially spread out also in zone "Pirin" All mentioned above is confirmed by the specific report for the area published on webpage of the information system for the protected areas from Natura 2000 network.	Recovery of the vital population in Vlahina Mountain connected with the population at Pirin mountain.
Habitat of the species: Area of the suitable habitats into boundaries of the zone	ha	At least 22 000 ha	Potential habitat are 45 % of the all habitats in the zone, primary related to beech forests, white pine, high mountain bushes and grass plants, firs, partially with oak forests, covered with rocky terrains that have habitats suitability between 60 to 80% and more. They occupy limited eastern and bordered western part of the zone separated by the Kresna gorge. The middle area, the shorter parts of the area connected with the gorge with its northern parts represent important corridor for migration out of bears from Pirin (As a hole population of Rilo-Rodopska) towards the west bordering mountainous territories to Malashevska mountain on the south, through Vlahina mountain towards Osogovo mountain and	Conservation of the area of the potential habitats at the zone.

Parameter	Unit	Target value	Additional information	SSCO
			Zemenska mountain and far more north towards region of Kraishteto. The data are According to the specific report published on the information site for the protected areas from ecological Natura 2000 network,	
Habitat of the species: Connectivity of the populations/habitats	Area of the sub-optimal habitats that provide connectivity for optimal habitats	At least 11 302 ha	The road through Kresna gorge passing alongside of the Struma river hinders the passage of the specimen but for sure is not unbearable barrier for migration out because there are evidence for passing bears. The data are According to the specific report published on the information site for the protected areas from ecological Natura 2000 network,(for reference area for the connectivity habitat is applied the same habitat as for <i>Canis lupus</i>)	Maintaining the area of sub-optimum habitats that provides connectivity with the potential habitats of the specimen with area of 11 302 ha
Habitat of the species: Habitats suitable for breeding dens	ha	At least 401,6 ha	According to the model the area suitable for dens and refuges is 6401,6 ha. This habitats are not optimal, but also are not with low suitability - they have an average parameters for suitability for dens. Nevertheless for the whole habitat, the percentage of the sites which provides rocky places suitable for dens is around 1/3 of the habitat. And a considerable part of them are in places well protected against easy human access and are placed in densely vegetated areas. This indicates good potential of these habitats for hibernation during the winter, not only	Maintaining the area of optimum habitats that are suitable for hibernation dens with area of 6 401,6 ha

Parameter	Unit	Target value	Additional information	SSCO
			<p>for the males, but also for pregnant females with their cubs.</p> <p>At eastern part of the mountainous territories there are places suitable for hibernation dens where occasionally could hibernate some pregnant females with their cubs.</p> <p>The data are According to the specific report published on the information site for the protected areas from ecological Natura 2000 network,</p>	

APPENDIX 2

Comments received by Road Infrastructure Agency (RIA) regarding the progress report to the Berne Convention.

By letter dated 27.06.2022, the Road Infrastructure Agency sent comments and notes to the Minister of the Environment and Waters on the draft decisions of working group 1. Serious discrepancies were found in the methodological approach and in the way of presenting the volume, scope and the quality of the objectives, which has led to a number of gaps, inconsistencies and contradictions. Within the scope of Working Group 1, horizontal amendments have been made in all objectives, key information and argumentation was removed for objectives setting, while making changes or adding parameters without providing any rationale. This leads to a lack of clarity about the approach to their setting, losing the logic of the objectives of individual objects and reasoning about the way they were developed. One of the most significant changes is related to the deletion of information about:

- the ecology of the relevant site, its description and ecological requirements, which are the basis for determining the parameters of good condition at the area level;
- characteristics of the natural habitat or habitat of the species that determine what is important for its conservation and where efforts should be focused;
- conservation status of the target site at the biogeographical/national level, which is the starting point for defining the objectives;
- status of the target object in the relevant protected area with information and data from conducted surveys, specific presence and status in the area, current status that is important to determine the desired status - i.e. whether the target will be associated with improve or maintain condition;
- characteristics of the natural habitat/habitat of the species, on the basis of which the current area of its distribution is determined - these characteristics are based on the ecology of the target site. These are used to produce a map of the current distribution of the target object in the area, with a description of the main data layers used to produce the map;
- map of the current distribution of the target site in the protected area;
- the information on the literature used with the main sources of information that were used in determining the objectives.

All these unjustified changes, given the lack of written reasoning, in-depth analysis and data supporting these changes, compromise the quality of the changed specific nature protection objectives of the two protected areas and cannot be used in this form.

In this regard, it should be borne in mind that the changes proposed by working group 1 in the specific environmental protection objectives developed according to the methodology adopted by the EC within the framework of the technical assistance provided to the Bulgarian authorities, financed by the General Directorate "Regional and Settlement Policy", are not final. They should be revised and supplemented with a view to improving their quality, then be the subject of discussion with all interested parties, and then be submitted for consideration by the National Biodiversity Board (NBB) to the Minister of Environment and Water

2. With regard to "Implementation of part of the mitigation measures on the impact of traffic on wild animals and birds in the Kresna Gorge", the Ministry of Environment and Waters required the RIA to present an analysis of the effectiveness of the proposed mitigation measures. In this regard, an analysis prepared by expert biologists and ecologists on the

suitability of mitigation measures (passage and barrier facilities) existing and designed for construction along the route of the E-79 road in the Kresna Gorge at the stage before the construction of the motorway was performed and presented to the Ministry of Environment and Waters for Struma Lot 3.2. In order to visualize the analysis of mitigation measures, structured information was presented in tabular and graphic (map) forms. These materials depict the location of culverts in relation to the optimal habitats of the four key reptile species - two species of land tortoises and two species of snakes in the section of the first-class international road E-79 passing through the Kresna Gorge. The results clearly show that all culverts (existing and planned for construction) fall entirely or partially within the optimal habitat area of the 4 target reptile species or are located in close proximity. From the analyzes carried out, it can be concluded that the suitability of all facilities to serve for the defragmentation of populations can be assessed as optimal or very high, and the proposed mitigation measures along the E-79 road are applicable, feasible and effective in relation to the identified impacts and the species, subject of conservation.

The data from the monitoring of the 4 key species of reptiles - two species of land turtles (*Testudo hermanni* and *Testudo graeca*) and two species of colubrid snakes (*Elaphe quatuorlineata*, and *Zamenis situla*) in the section of the first-class international road E-79 passing through Kresna Gorge, indicate the presence of viable populations of the target species. For more than 80 transects along the route of the gorge, the presence of a large number of representatives of both tortoise species near the road has been established. Denser populations were detected in certain sections, mainly in the southern part of the route. The data show the presence of adult animals of both sexes, as well as subadults and very young animals. Such preliminary data on population dynamics are an indicator of the good condition of the tortoises inhabiting terrains in the vicinity of the roadway. A large number of eggs (both hatched and destroyed) were found during the field visits, indicating that the areas are used for breeding by both tortoise species. Live specimens of the two target snake species were found, as well as their exuviae. Having in mind the extremely low detectability potential of both species (especially of *Z. situla*), field data indicate that the species are present. The victims of collisions with cars are relatively few in number, which indicates on the presence of certain ethological avoiding mechanisms characteristic for the populations living near the road. With appropriate interim measures, traffic casualties and defragmentation can be generally reduced. For the purpose of protecting the target species, the implementation of the temporary mitigation measures proposed by the RIA is required.

3. Regarding the "Implementation of road safety measures" in the section of the first-class international road E-79, passing through the Kresna gorge, one of the goals set for the implementation of Lot 3.2 of the Struma highway is to improve traffic safety and reduce the number of traffic accidents in the section with a very high concentration of traffic accidents. In this regard, measures are being implemented to change the organization of traffic, including a ban on overtaking in the section through the Kresna gorge by laying a new horizontal marking - an axial double continuous line with a distance between the lines executed in red and a physical separation of the traffic lane by placing flexible restraints. Corresponding vertical signaling for speed limits is also provided. API is preparing a procedure for the development of a technical project and the construction of a footbridge within the scope of the Kresna inn, as well as for a video surveillance and traffic diversion system.



REPUBLIC OF BULGARIA
MINISTRY OF ENVIRONMENT AND WATER

Complaint No. 2001/4 and Recommendations No. 98 (2002) and 212 (2022) on the project to build a motorway through the Kresna Gorge (Bulgaria) (Struma Motorway Lot 3.2)

Progress since the 41st Standing Committee

1 April 2022

Since the Parliamentary elections in November 2021, a new Government was formed in Bulgaria. The Minister of Environment and Waters (MoEW) Mr. B. Sandov, the complainant NGO Coalition “Save Kresna Gorge” and the local community in Kresna hold a joint meeting in January 2022 in the town of Kresna. There was also a meeting between the Minister of Regional Development and Public Works Mr. G. Karadzov and the complainant NGO Coalition. Both meetings discussed the forthcoming joint work on the implementation of Recommendation 212 (2022). There is common will to finalize the Struma motorway project in full accordance with the EU environmental acquis, particularly with the Habitat Directive requirements and Bern Convention recommendations.

Implementation of the Recommendation 212 (2021) started with the following actions:

1. Establishment of new cooperation relationship between the Government and Complainant for implementation of point 1 of the Recommendation and establishment of three common consensus-based advisory Working groups according to point 2 of the Recommendation;

1.1. The first Working group on biodiversity, hosted by MoEW, has started its work addressing point 3 of the Recommendation. The participants are MoEW, the Institute of Biodiversity and Ecosystem Research of Bulgarian Academy of Science (IBER-BAS), Forestry University, National Museum of Nature History (NMHN) of BAS, Faculty of Biology of Sofia University, Forestry Institute of BAS, BALKANI Wildlife Association, and Bulgarian Society for the Protection of Birds. The MRDPW and RIA have participated as observers in the second meeting of group.

The group had two meetings on February 22 and March 18, 2022. During the second meeting, the existing proposals for Site Specific Conservation Objects (SSCOs) for the NATURA 2000 sites in Kresna were presented. Further discussion on this topic will be held in April 2022.

With a letter submitted to MoEW under ref. 48-00-255 from 22.03.2022 the ‘Save Kresna Gorge’ Coalition has expressed the following:

NGOs actively participated in the two meetings of the working group for developing SSCOs. NGOs thank MoEW for the constructive spirit in the working group. Expectation is that the group will achieve results and approve SSCOs, with only a slight delay, compared to the timetable set out in point 7.11 of the report of the independent experts to the 41st Committee.

On February 22, 2022 MRDPW and on March 10, 2022, RIA have requested a change to be made in the order for the establishment of the working group in order to:

- accurately reflect the tasks of the group, as reported to the 41st Standing Committee of the Convention in the joint report of November 2021.
- include in the group representatives of MRDPW in connection with the Struma highway project.

The order will be amended in order to include representatives of MRDPW and RIA. In their e-mail from 30 March 2022, NGOs welcomed this approach and the full publicity of the group's work on the SSCOs, taking into account the need to set SSCOs of NATURA 2000 sites fully independent and unaffected by economic and other irrelevant considerations to the provisions of the EU Habitats Directive.

1.2. The Second (EIA/AA revision) and the Third Working Groups (road safety and local communities needs according p. 9) are hosted by MRDPW. By a letter dated March 10, 2022, RIA informed MoEW about the orders issued for the establishment of the two working groups. The groups include between 30 and 40 participants from all stakeholders.

Regarding the working groups in their letter of March 22, 2022, the NGOs expressed the following:

NGOs are very concerned about the designation orders issued on March 10, 2021 to establish the two working groups by an order of the Minister of Regional Development and Public Works. Although the groups have been declared as consensus-based, they lack a consensus decision-making mechanism and include a majority decision-making mechanism. At the same time, they exclude all mechanisms for publicity - for example, audio recordings and public broadcast of their work. NGOs fully support and believe in the principles and mechanisms of consensus and full publicity for finding solutions and overcoming differences between parties. These principles are clearly stated in the first joint report between the government and NGOs to the 41st Committee of the Convention reported on November 10, which is clearly and unambiguously reported in Recommendation 212 (2021).

Another subject of concern, is the lack of concrete text in the designation orders engaging the competent institutions to consider and implement the decisions of the working groups, which contradicts to the points 1 and 3 of Recommendation 212 (2021).

NGOs hope that the work of the groups will be carried out in accordance with these guiding principles and remain a constructive partner in this process of finding a common solution.

For the other site RIA and MRDPW expressed the following opinion:

The implementation of a consensus-based decision-making mechanism in the second and third working groups is a slow and complex process, as no decision can be taken until all participants have approved it. The purpose of the consensus decision-making procedure is to find common ground. Within such large working groups (over 30-40 people) and given the various institutional and social structures they represent, it is not possible to reach full consensus. In addition, the decisions of the working group are whether or not to propose a consensus proposal to the relevant competent authority, rather than to take over their functions and decide on their behalf. It should also be taken into account that the representatives of various competent bodies in the working groups are experts, but the policies formulation and final decisions on the relevant procedures is the competence of the heads of government institutions.

2. Ongoing monitoring programme and the mitigation measures implementing point 5 of the Recommendation.

On March 10, 2022 RIA submit to MoEW information on the application of point 5 of recommendation 212 (2021).

2.1. In February 2020 a project of monitoring of the population of 4 species of reptiles has started. The subject of monitoring are two species of land tortoises - *Testudo graeca* and *Eurtestudo hermanni* and two species of snakes *Elaphe quatuorlineata* and *Zamenis situla*. The project will be implemented in 4 years period (2020-2023) as for each year the monitoring activities are carried out in three periods, conditionally called: spring season; summer season; autumn season. Field work started in early June 2020. So far, contractors have submitted 5 interim reports covering the period from June 2020 to October 2021. Until the end of the project activities from 6 more seasons will be reported: spring, summer and autumn 2022 and spring, summer and autumn 2023.

2.2. In April 2020, as a result of a meeting with representatives of DG 'Environment' of the European Commission, a request for information was received concerning the measures taken by Bulgaria to

mitigate the impact of current traffic on E-79 road along the gorge on species and habitats protected by both Natura 2000 sites.

Following the requested by the European Commission about the implementation of temporary mitigation measures in the Kresna Gorge (some of which are included in the EIA Decision 3-3 / 2017 of MoEW), RIA signed a Contract Ref. D-7 from 08.01.2021 for assignment of a public procurement with subject: 'Elaboration of a technical project and implementation of part of the measures to mitigate the impact of traffic to wild animals and birds in the Kresna Gorge, specified in EIA Decision 3-3 / 2017, by building and modification of fencing and defragmentation facilities on road I-1 from km 380 + 300 to km 396 + 137 (part of the right lane of Struma Motorway Lot 3.2)' and increasing safety in the section.

On November 11, 2021 RIA submitted to MoEW documentation for assessing the need for EIA and Appropriate Assessment (AA) of the project. The purpose of the project is to mitigate the impact of existing traffic on the road E-79 in the gorge on species and habitats protected in the two Natura 2000 sites.

In January 2022 MoEW has requested additional information regarding the project, which was provided by RIA in February 2022.

According to MoEW, the measures to increase safety would most likely not be a subject to procedures under environmental legislation. With regard to some of the measures designed to mitigate the impact of trafficking on wildlife in the Kresna Gorge, MoEW believes that they should be considered as an independent action for species protection, which is mandatory by law without being linked to future projects of highway. In this regard, MoEW has issued a second letter requesting additional information about the project in order to correctly determine the applicable procedures.

Regarding the project, with their letter of March 22, 2022, the NGOs expressed the following:

NGOs are deeply concerned about the RIA's project for implementation of preliminary mitigation measures along the current road in Kresna Gorge. The project was submitted to MoEW in November 2021 - just before the meeting of the 41st Committee of the Convention and during the preparation of the first common joint government and NGOs report to the Convention Committee. However, NGOs only learned about the project on February 28, 2022. NGOs expressed concern and warn that such concealment or delay in public access to relevant information in the case could jeopardize finding common solutions.

In respect to this statement, RIA notes that the notification of the investment proposal with the subject: 'Elaboration of a technical project and implementation of part of the measures to mitigate the impact of traffic to wild animals and birds in the Kresna Gorge, specified in EIA Decision 3-3 / 2017' had been published on 11.11.2021 on the RIA's website - api.bg in the section 'Documents', which meets the legal requirements for public access by the Contracting Authority at that stage of the procedure.

According MoEW the legal order and requirements are met.

NGOs found that the project combines both: important and urgent measures related to road safety and the avoidance of road accidents and small animal underpasses and fences with unproven effectiveness from the EIA Report 2017. NGOs refer to this as very worrying circumstance. NGOs expressed their concern at the meeting on February 28th, saying the two activities need to be separated. Also they pointed out that it is urgent to implement only the measures related to road safety and the avoidance of road accidents. These measures are non-invasive and do not pose a risk to biodiversity and do not require approval procedures in NATURA 2000.

3. Development of a National Detailed Timetable implementing point 11 of the Recommendation and point 7.11 of the Mission Report.

A decision to approve a National Detailed Timetable to speed up work on the case was taken on February 28, 2022 at an initiative of MoEW during the meeting for the discussion the general reporting to the Bern Convention with the participation of MRDPW, RIA and the complainant NGOs.

NGOs welcome the decision. NGOs consider such a plan to be key to overcome the delays in implementing Recommendation 212 (2022) and the timetable set out in point 7.11 of the Mission Report

of the Independent Experts to the 41st Committee. NGOs will support the creation and approval of this plan and will be involved in its implementation.